VANCOUVER ISLAND
SUMMARY LAND USE PLAN

BRITISH COLUMBIA

FEBRUARY 2000

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Vancouver Island Summary Land Use Plan
Errata Sheet
February 28, 2000

Page 59, Table 7, GMZ Unit #32 (Quadra Cortes) – add "G" to Water column

Page 61, General Wildlife Management Regime, 1st Strategy – delete "...in SMZ"

Page 88, Table 8 should be replaced with the attached table.

Table 8: Management Regimes For Individual EFZ Units
(**BOLD** denotes primary regimes)

RMZ Unit # and Name	TIM	WAT	FISH	WL	BIO	VIS	REC	TOU	C/K	CULT. HER	ACC
4 San Josef - Koprino	**E**	G	**G**	G	**G**	G	G	G	G	G	G
5 Holberg	**E**	**CW/G**	**G**	G	B	G	G	G	G	G	G
6 Keogh-Cluxewe	**ES(ETH)**	G	**G**	G	G	B	G	G	G	G	G
8 Mahatta-Neuroutsos	**E**	G	**G**	**G**	B	G	G	G	G	G	G
10 Nimpkish	**E**	G	**G**	**G**	**B**	G	G	G	G	G	G
11 Bonanza	**ES(ETH)**	G	**G**	**G**	**G**	G	G	G	G	G	G
15 Tahsish	**E**	G	**G**	G	**G**	G	G	G	G	G	G
18 Eliza	**E**	**CW/G**	**G**	G	B	**G**	G	G		G	G
19 Tahsis	**E**	**CW/G**	**G**	G	B	**G**	G	G	G	G	G
21 Tlupana	**E**	G	**G**	**G**	**G**	G	G	G	G	G	G
23 Kleeptee	**E**	G	**G**	**G**	B	G	G	G		G	G
24 Burman	**ES(ETH)**	G	**G**	**G**	B	G	G	G	G	G	G
27 Naka	**ES(ETH)**	G	**G**	G	B	**G**	G	G		G	G
28 Adam and Eve	**E**	G	**G**	**G**	**B**	**G**	G	G	G	G	G
30 Salmon	**E**	**CW/G**	**G**	**G**	**B**	G	G	G	G	G	G
36 Cous	**ES(ETH)**	G	**G**	G	B	**G**	G	G	G	G	G
38 Effingham	**ETH(ES)**	G	**G**	G	**G**	G	G	G	G	G	G
40 Maggie	**ES(ETH)**	**CW/G**	**G**	G	B	**G**	G	G	G	G	G
42 Corrigan	**ES(ETH)**	**CW/G**	**G**	**G**	**G**	G	G	G	G	G	G
43 Sarita	**ES(ETH)**	**CW/G**	**G**	**G**	B	G	G	G	G	G	G
44 Klanawa	**E**	G	**G**	**G**	**G**	G	G	G		G	G
47 Loss-Jordan	**E**	G	**G**	G	B	**G**	**G**	G		G	G

Note: Cave/Karst management is limited to those RMZs with known features or high probability of such occurrence

TIM	Timber	BIO	Biodiversity	C/K	Cave/Karst
WAT	Water	VIS	Visual	CULT. HER	Cultural Heritage
FISH	Fish	REC	Recreation	ACC	Access
WL	Wildlife	TOU	Tourism		

Regimes:
S – Special G – General **B – Basic** E – Enhanced
ES – Enhanced Silviculture **ETH – Enhanced Timber Harvesting** CW – Community Water

LETTER FROM THE MINISTERS

File: 31100-25-01

Dear Reader:

Re: Endorsement of the Vancouver Island Summary Land Use Plan

On behalf of Cabinet, we are pleased to endorse this Summary Land Use Plan for the Vancouver Island region and confirm direction to participating ministries to implement the plan.

This Summary Plan provides, under one cover, the key components of strategic land and resource management decisions made by government for Vancouver Island as a result of its 1994 Land Use Decision. These components include reports and announcements made since 1994 on protected area boundaries, special features protected areas, and resource management zone objectives and strategies.

This document will assist government agencies, the public, and stakeholder groups by providing a concise guide to future management and planning of land and coastal zone resources. Components of the plan related to forest development will be established as a "higher level plan" under the *Forest Practices Code Act* to provide direction to statutory decision-makers. The Vancouver Island Interagency Management Committee will have the responsibility of coordinating plan implementation, monitoring and review.

We would like to thank First Nations, local governments, stakeholders and the public for their contributions to development of the many components of the Vancouver Island Plan. The varied processes have demonstrated that diverse interests can work together on future management and planning of land and resources. We encourage these interests to continue their involvement in the Plan through community resource boards and plan monitoring committees.

We look forward to continued implementation of the Land Use Plan and the achievement of sustainable development on Vancouver Island.

David Zirnhelt
Ministry of Forests

Joan Sawicki
Minister of Environment, Lands and Parks

Dan Miller
Minister of Energy and Mines

Ian Waddell
Minister of Small Business, Tourism and Culture

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Acronyms

AAC	Allowable Annual Cut
CORE	Commission on Resources and Environment
CPU	Coastal Planning Units
CRIS	Coastal Resource Interests Studies
CWAP	Coastal Watershed Assessment Procedure
CWD	Coarse Woody Debris
CWS	Canadian Wildlife Service
ESA	Environmentally Sensitive Area
FEN	Forest Ecosystem Network
FPC	Forest Practices Code
FRBC	Forest Renewal BC
GPS	Global Positioning System
HLP	Higher Level Plan
IAMC	Interagency Management Committee
IR	Indian Reserve
LIARC	Low Intensity Areas Review Committee
LRHL	Long Run Harvest Level
LUCO	Land Use Coordination Office
MFISH	Ministry of Fisheries
MB or M&B	MacMillan Bloedel Ltd.
MELP	Ministry of Environment, Lands and Parks
MOE	Ministry of Environment
MOF	Ministry of Forests
MPU	Marine Planning Unit
MSBTC	Ministry of Small Business, Tourism and Culture
OGMA	Old Growth Management Area
PAS	Protected Areas Strategy
PFS	Planning Framework Statement
RLUPS	Regional Landscape Unit Planning Strategy
RMZ	Resource Management Zone
SBFEP	Small Business Forest Enterprise Program
SMZ	Special Management Zone (Low Intensity Area)
TFL	Tree Farm Licence
TSA	Timber Supply Area
TSR	Timber Supply Review
VILUP	Vancouver Island Land Use Plan
VIRT	Vancouver Island Resource Targets
VQOs	Visual Quality Objectives
NDT1	Natural Disturbance Type 1
NDT3	Natural Disturbance Type 3
WFP	Western Forest Products
WHA	Wildlife Habitat Area

INTRODUCTION

1.1 THE PLAN AREA

LOCATION

Vancouver Island is located on the Pacific Coast of Canada, separated from the British Columbia mainland by Georgia Strait, Johnstone Strait, and Queen Charlotte Strait (**Map 1**). At its southern end, the Strait of Juan de Fuca separates the Island from the State of Washington, USA.

Vancouver Island is approximately 3.35 million hectares in size, representing 3.5% of the land area of British Columbia. The majority of its 702,000 residents are located along the eastern coast, with over half concentrated in the urban centres of Victoria, Nanaimo, and Campbell River.

The portion of Vancouver Island addressed in this Land Use Plan (the Plan Area) is shown in **Map 2**. The Plan Area includes all of Vancouver Island except for the Clayoquot Sound area, which has been subject to a separate planning and management process. It also includes the adjacent nearshore coastal zone and some offshore islands.

PHYSICAL GEOGRAPHY, CLIMATE AND ECOLOGY

Vancouver Island's physical features are characterized as coastal plains in the east, long fjords on the western coast, and a chain of glaciated mountains running along its north-south axis.

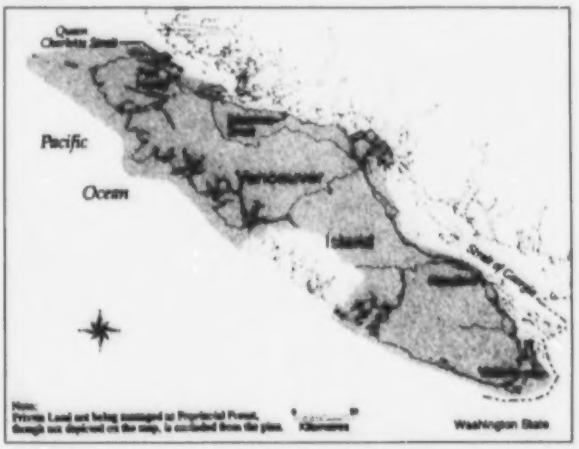
The Island's climate is maritime, with warm, dry summers and wet, mild winters. The average annual temperatures range from 3°C to 14°C, with a mean annual temperature of 9°C. Average annual precipitation ranges from greater than 3500 mm on the western side of the Windward Island Mountains to less than 750 mm near Victoria. The majority of precipitation occurs in the fall and winter, which at higher elevations creates a snow pack that feeds the Island's stream network. The Island's west coast is one of the wettest places in North America.

Numerous large rivers flow to the coast through broad glacial valleys and terminate in extensive deltas and estuary complexes. Many of the Island's smaller streams are contained in steep and narrow valleys, reflecting rugged topography, particularly on the western side of the Island.

Vancouver Island has been classified by ecologists into five separate ecosections that represent these varying physical features and climatic conditions. Eleven of the province's biogeoclimatic subzone variants are found on the Island. These different ecosystems are shown in **Map 3.**

MAP 1

MAP 2



Forest Resources

Forests cover about 91% of the Island. Just under half of this cover is original old growth forest, while the remainder is managed second growth forest. Second growth forests are concentrated in the easily accessible southeastern and other low elevation areas of the Island, while old growth forests are mainly in the higher elevations and the more remote western and northern parts of the Island. **Map 4** shows the distribution of forest age according to thematic mapping derived from 1992 satellite data interpretation.

The Coastal Douglas Fir Zone comprises 4% of Vancouver Island, and has been heavily modified by human settlement, infrastructure and cultivation use and contains very few remaining areas of original forest. The Coastal Western Hemlock Zone occupies 84% of Vancouver Island, and occurs from sea level to about 900 metres elevation. The Mountain Hemlock Zone covers 12% of the Island, and is found above the Coastal Western Hemlock Zone up to 1,800 metres in elevation. **Map 3** shows the physical distribution of these zones across Vancouver Island.

The remainder of the Island's land area is primarily cultivated land or land converted to settlement uses, as well as natural, non-forested areas such as alpine meadows, rock, glaciers, and estuaries. **Map 4** shows the distribution of forest cover types according to the three broad biogeoclimatic zones with which they are associated.

Forestry is one of the most important industries on Vancouver Island. In recent times, however, the value of forests has substantially increased for their non-timber values, such as recreation, scenery and tourism, First Nations traditional uses, as well as wildlife, environmental and biodiversity values. The importance of these forest values has increasingly been recognized and reflected in provincial forest legislation, culminating in the enactment of the *Forest Practices Code of BC Act* in 1995. The Code applies to all forest land under Crown provincial forest tenure, or about two thirds of the Island's forests, with the remainder either privately owned and managed or under protected status.

As a result of increasing recognition and conservation of non-timber forest values, as well as other factors, timber harvest rates for most forest management units on the Island have been decreasing in recent years, and most are projected to decline further from current harvest levels in the years to come.

Mineral and Energy Resources

Vancouver Island contains rich and diverse mineral and energy resources, ranking it amongst the most highly mineralized regions of BC (See **Map 5**). The BC Geological Survey's mineral inventory database documents over 1,300 known mineral occurrences on Vancouver Island. Recent exploration has focused on prospective zones in the "Island Copper belt" north of Quatsino Sound, Esperanza Inlet, Barkley Sound, San Juan Ridge, Mount Sicker, Taylor River Valley, and extensions of Westmin-type geology north of Strathcona Park primarily for copper and gold deposits.

The Island contains a variety of energy resources. Hydroelectric energy development occurs on the Campbell River, Puntledge River near Comox, Elsie and Doran Lakes near Port Alberni, and Jordan River. Additional electrical energy needs are furnished by high voltage transmission lines from the Lower Mainland, and by diesel-electric generation at remote communities. The sedimentary basins underlying the eastern edge of Vancouver Island and extending beneath Georgia Basin have potential for hydrocarbons, mainly natural gas. Offshore oil and gas resource development is under a provincial moratorium. Currently, natural gas is transported to the Island via the Vancouver Island Natural Gas pipeline from northeast BC.

Other undeveloped energy resources on the Island include: thermal coal and coal-bed methane deposits in the sedimentary basins along the eastern coast, low-head hydro-electric development, industrial co-generation, geothermal, wind, tidal and wave.

Maps:

3 - Ecological Classification Of Vancouver Island

4 - Vancouver Island Forest Cover

5 - Minerals And Energy

MAP 3: Ecological Classification of Vancouver Island

128°45'00" 127°30'00" 126°15'00" 125°00'00" 123°45'00"

Queen Charlotte Strait

Nahwitti Lowland

Vancouver Island Shelf

Outer Fiordland

Northern Island Mountains

Strait of Georgia

Leeward Island Mountains

Windward Island Mountains

Nanaimo Lowlands

LEGEND

Biogeoclimatic Subzones/Variants:

- Alpine Tundra
- Coastal Douglas-Fir, Moist Maritime
- Dry Maritime Coastal Western Hemlock (CWH)
- Submontane Moist Maritime CWH
- Montane Moist Maritime CWH
- Southern Very Wet Hypermaritime CWH
- Submontaine Very Wet Maritime CWH
- Montane Very Wet Maritime CWH
- Eastern Very Dry Maritime CWH
- Western Very Dry Maritime CWH
- Windward Moist Maritime Mountain Hemlock
- Lakes
- Terrestrial Ecosection Boundary
- Planning Area Boundary

Scale 1:1250000

0 10 20 30 40

Kilometres

Land Use Coordination Office

Albers Equal Area Conic NAD83

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Map 4: Vancouver Island Forest Cover (1992)

LEGEND

Forest Land Cover 1992

Recently Logged
Timber harvesting within the past 20 years, or older if tree cover is less than 40% and under 6 meters in height.

Immature Forest
forest less than 140 years old and greater than 6 meters in height. Areas defined as Recently Logged land use are excluded from this class.

Mature Forest
Forest greater than or equal to 140 years old and greater than 6 meters in height. Areas defined as Recently Logged land use are excluded from this class.

Other Land Cover
Other land uses, including estuaries, glaciers & snow, rangelands, recreation activities, urban, and wetlands.

Source: Baseline Thematic Mapping - Present Land Use 1:250,000.

Planning Area Boundary

Scale 1:1250000

Kilometres

Land Use Coordination Office
Albers Equal Area Conic NAD83

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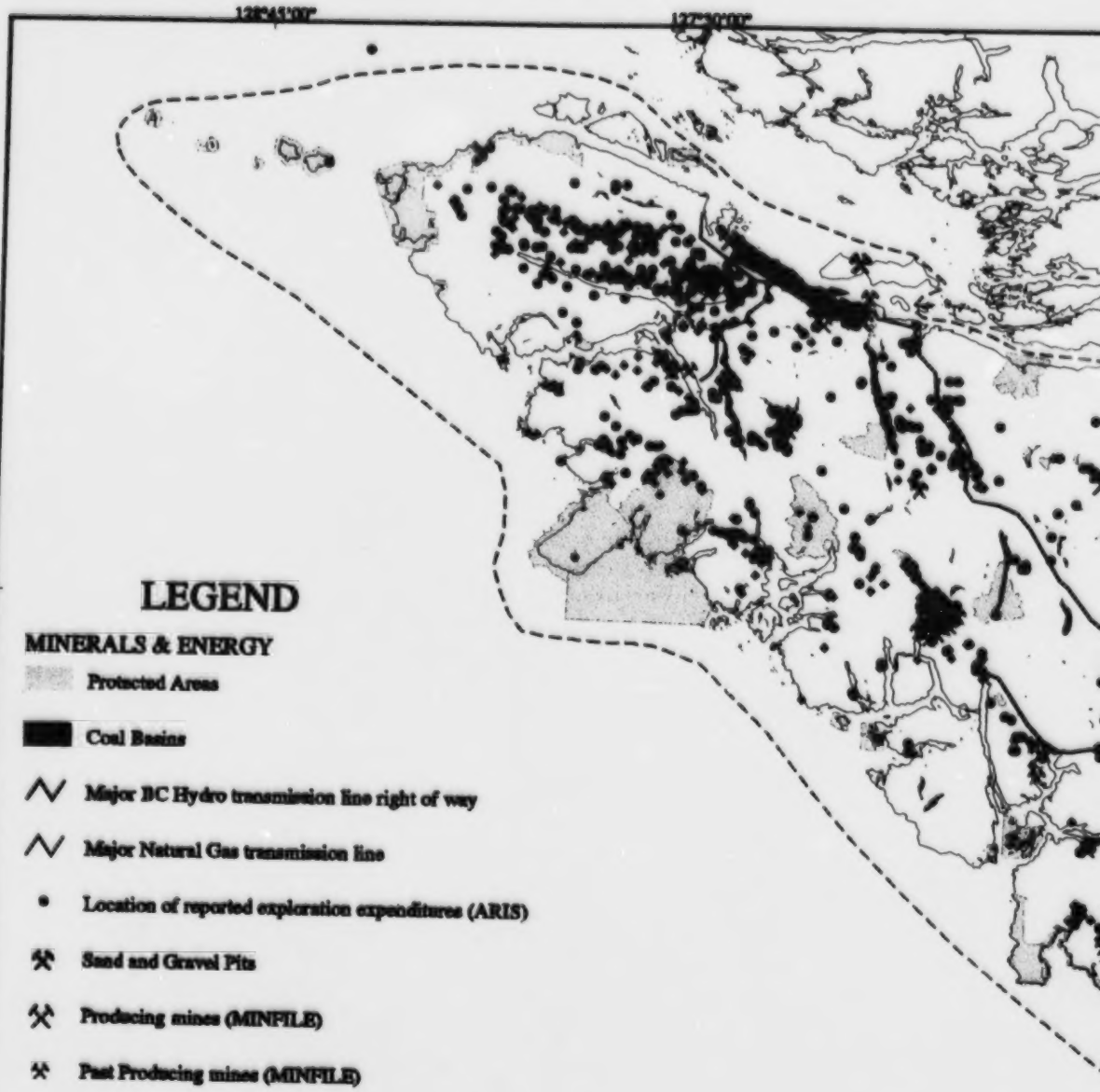
September 24, 1999



LEGEND

MINERALS & ENERGY

- Protected Areas
- Coal Basins
- Major BC Hydro transmission line right of way
- Major Natural Gas transmission line
- Location of reported exploration expenditures (ARIS)
- Sand and Gravel Pits
- Producing mines (MINFILE)
- Past Producing mines (MINFILE)
- Known Mineral Occurences (MINFILE)
- Dam site

For additional information, please visit "The Map Place" at http://www.em.gov.bc.ca/mining/Geolsurv

- Planning Area Boundary

Scale 1:1250000

Kilometres

Land Use Coordination Office
Albers Equal Area Conic NAD83

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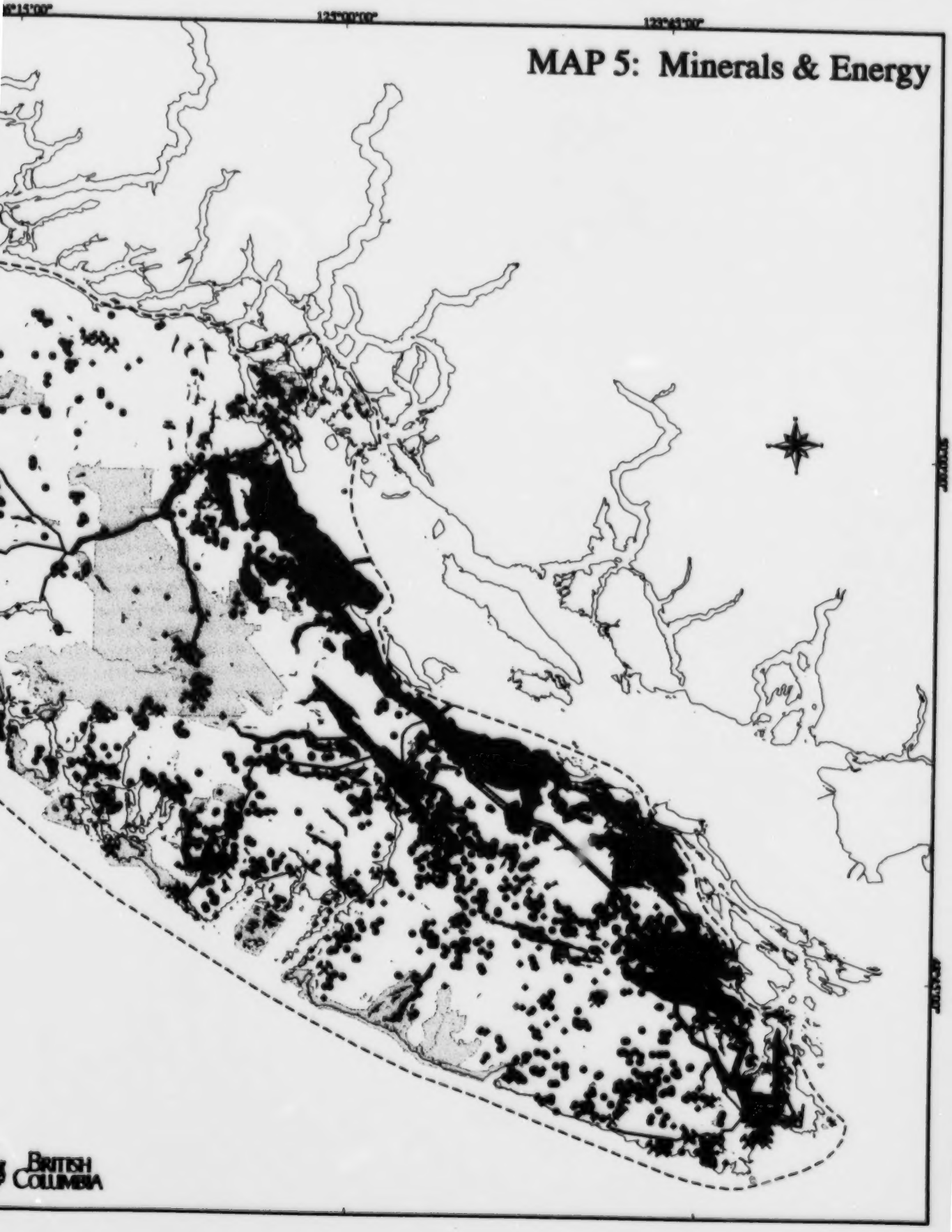
MAP 5: Minerals & Energy



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Fish and Wildlife Resources

The ecosystem types on Vancouver Island support a rich diversity of fish and wildlife, although settlement and human activities have modified populations and distribution of species (see **Map 6** for the distribution of selected fish and wildlife resources on Vancouver Island). There are 30 indigenous mammal species (excluding marine mammals), six of which are on the provincial Red list (candidates for legal designation as endangered or threatened) and three on the Blue list (species considered to be vulnerable or sensitive to human activities or natural events). Some of these are recognized as distinct subspecies, such as the Water Shrew, Townsend's Vole, and Ermine, associated with island isolation. The Sea Otter and Vancouver Island Marmot are legally designated as endangered under the provincial *Wildlife Act*. The Island also supports healthy populations of Black Bear, and a dynamic predator-prey system consisting of cougar, wolf, Roosevelt Elk and Black-tailed Deer.

There are about 140 bird species that breed on Vancouver Island, representing 37% of the bird species breeding in Canada. Eight of these species are Red listed, notably the Northern Goshawk and Marbled Murrelet, and another eight are on the Blue list. Seabird breeding colonies surround Vancouver Island. The most well known colonies are found on the Scott Islands, which support some of the most important breeding areas on the Pacific coast. In addition, the low gradient shorelines and coastal wetlands located on the east side of Vancouver Island from Comox south to Cowichan Bay support internationally significant populations of migrating and wintering shorebirds and waterfowl. Isolated estuaries along western Vancouver Island provide critical "islands" of habitat along an otherwise inhospitable coastal shoreline.

High profile water bird species and populations supported by these habitats include the largest wintering population of Trumpeter Swans in the world and the entire population of Pacific Black Brant during the spring migratory period.

Nine indigenous amphibian species (five salamanders, four frogs), and seven species of reptiles (one Red and one Blue) inhabit Vancouver Island. The majority of these species are forest dwellers, many requiring specific habitat elements to provide for all or part of their annual life cycle. For example, about 23% of the forest-dwelling birds and 48% of the mammals are cavity users. Balancing the habitat needs of these species with the demands of economic development continues to be a major challenge and a key issue for land use planning processes.

Resident and anadromous fish values of Island streams and lakes are extensive. Many waters possess fisheries values that support the commercial and sport fishing sectors as well as aboriginal sustenance fishing. Past human activities have resulted in destruction of spawning and rearing habitats, while changing biophysical conditions and increasingly efficient fishing techniques in the open ocean have all impacted the number of anadromous fish returning to spawn in Island streams.

Past management of fish and wildlife resources has focused primarily on consumptive practices, such as hunting and fishing. In recent years, a burgeoning tourism industry has begun to capitalize on the value of fish and wildlife for non-consumptive uses.

Fresh Water Resources

Water resources of Vancouver Island include numerous large and small lakes, extensive stream systems, wetlands, and ground water. Water storage on a number of lakes has been increased to support hydroelectric projects, community water use, irrigation, and fisheries flow enhancement.

Streams on the Island generally flow out from the interior lakes and snow packs of the Island to the ocean. Stream flows commonly peak during winter months, with low flows during the summer and fall. Critically low summer flows are experienced in the southeast, with smaller streams having negligible to zero flow. A considerable number of forested watersheds supply drinking water for communities on Vancouver Island. Many of those watersheds are classified under the Forest Practices Code (FPC) as "community watersheds," and are subject to particular FPC regulations to ensure water quality, quantity and timing of flow are protected.

Groundwater use is common for agricultural, rural residential and some commercial/industrial purposes. There are groundwater concerns both in water quantity and quality within some areas on southeastern Vancouver Island.

Agricultural Resources

The soils, climate and terrain of Vancouver Island support a range of agricultural activities. Although early settlements placed great emphasis on local food self-sufficiency, most agricultural activity is currently in the form of highly diversified mixed farming. Most agricultural activity now takes place on small holdings. Lands currently either under cultivation or demonstrating a high potential for agriculture amount to 98,000 hectares.

Major commodities produced on Vancouver Island include dairy (milk), beef, vegetables, sheep, grapes and berries. Livestock and dairy production account for approximately 63% of the agricultural operations found on Vancouver Island. Vegetable, fruit and other plant production amount to an additional 27% of the Island's farms, with other specialized products accounting for the remainder.

Coastal Resources

The coastal resources of the plan area are extensive, and have historically played a significant role in the social, cultural and economic development of adjacent communities, including First Nations communities. The coastal zone contains a diverse array of marine habitats, which range from the nutrient-rich inlets and rocky shores of the west coast, to the extensive beaches of the Strait of Georgia. The northern and southern ends of the Island are highly variable environments where the inshore and offshore marine waters meet. This variability is responsible for the diverse biological communities at the southern (e.g. Race Rocks) and northern (e.g. Browning Passage) parts of the Island.

The Strait of Georgia is a deep, productive, inland sea that supports large populations of wintering and migratory birds, 89 southern resident killer whales, and a significant commercial, aboriginal, and recreational fishery. The narrow channels of Johnstone Strait provide an important migratory corridor for salmon and marine mammals as well as a significant marine transportation and recreation corridor. Queen Charlotte Strait is characterized by well mixed, nutrient-rich waters that support numerous fisheries and a growing marine tourism sector. The extensive aboriginal, commercial, and recreational fisheries along the west coast of Vancouver Island are driven by one of the largest upwelling systems in the Pacific. The Strait of Juan de Fuca is a deep, glacially scoured trough, where cold, nutrient-rich ocean water travels at depth towards the Strait of Georgia, while surface freshwater plumes flow out to sea. The Strait of Juan de Fuca is also an important transportation and migratory corridor.

Gray, humpback, right, blue, sei, minke, killer, false killer and fin whales are known to occur in Vancouver Island's coastal regions, along with harbour and Dall's porpoises, and Pacific White-sided dolphins. Sea otters were reintroduced to northwestern Vancouver Island between 1969-1972; their current range has expanded to include Barkley Sound and Queen Charlotte Strait. Harbour, elephant, and northern fur seals, as well as California and Stellar's sea lions are also found in this area. With the exception of killer whales, Dall's porpoises. Pacific White-sided dolphins, California sea lions, and harbour seals, all the above marine mammals are red or blue listed provincially, nationally, or internationally.

Harvested fish species include herring, Pacific cod, Pacific hake, walleye, pollock, lingcod, blackcod, rockfish, halibut, sablefish, dogfish, salmon, and eulichan. Harvested invertebrates include clams (including geoducks), crabs, prawns, shrimp, mussels, abalone, scallops, sea urchins, sea cucumbers, squid, octopus, and barnacles. Some of these stocks are currently depleted and subject to special management direction, including prohibitions from harvesting.

Baynes Sound is one of Canada's most productive shellfish growing areas and is BC's most significant oyster producing area. However, many shellfish harvesting areas are permanently closed primarily due to contamination from settlement areas.

Recreation, Tourism and Visual Resources

Vancouver Island offers a diverse range of tourism and recreational opportunities that have received international attention and acclaim. Such opportunities include cultural features, built amenities such as golf courses and ski hills, and wilderness adventures on land and at sea. Benefiting from a mild climate, accessibility and a reputation for unspoiled natural surroundings, Vancouver Island's tourism industry has developed into a major employer and generator of economic activity.

Vancouver Island's natural and cultural resources are important underpinnings of the tourism industry. The Island's east and west coasts provide contrasting opportunities - wild storms and remoteness on the Pacific-swept west, with protected waters and the amenities of larger urban centres on the sheltered eastern side. Inland, legendary stands of old-growth forests attract nature-lovers from around the world, with rugged mountains and cave-riddled karst topographies each offering unique attractions. An abbreviated list of tourism and recreational opportunities includes saltwater sport fishing, marine cruising charters, resorts and backcountry lodges, kayak touring, coach or auto touring, camping, nature appreciation and scenic/wildlife viewing, hiking, cycling, beachcombing, scuba diving, caving, and cultural tours to wineries, farms, museums, galleries and other attractions.

1.2 Land Use Pattern

Map 7 shows the general pattern of land use in 1993 as a basis for comparing the Vancouver Island Plan outcome with previous conditions (i.e. a base case). For ease of comparison, the same land use categories are used for the pre-decision land use pattern.

Due to the scale of **Map 7**, areas smaller than 250 hectares do not appear and consequently a land use category may have pockets of different uses within it that is inconsistent with the intent of the category. The map does not specifically identify federal lands, First Nations Reserve lands or traditional territories.

Map 7 shows Protected Areas before 1994 occupying approximately 345,000 ha of land and surface water (10.3% of the Island). Included are land and nearshore coastal areas within the boundaries of national parks, provincial parks, ecological reserves and recreation areas under the *Park Act*. Many different types of recreational activities occur within existing protected areas designated as parks. They tend to be seasonal in nature. Some "non-conforming" uses or activities occur and are under permit through the authority of the *Park Act*. These pre-date the establishment of the protected areas.

A small number of Special Use areas are shown in **Map 7** as sites used for large surface extraction activities and for intensive-use commercial and recreational facilities. The sites identified on the map included the Island Copper mine (now closed) near Port Hardy, and the Mount Washington ski hill complex west of Courtenay.

Approximately 1.8 million ha of Crown land and water (52.6% of the Island) is shown as General Management, which accommodates a wide variety of resource values and uses. It includes the majority of forested Crown lands managed as provincial forest in Timber Supply Areas, as well as Crown and private land contained in Tree Farm Licences. Forest lands in this category include legally designated Wildlife Management Areas, as well as ungulate winter range and other small areas managed as "environmentally sensitive areas." Nearly all forested lands in this designation are committed under some form of Crown tenure. The category also contains community watershed areas and local government parks.

Timber production and related harvesting and silviculture practices are the predominant uses in this category. Coastal activities occurring in this category include log-handling facilities, floating camps, aquaculture, floating homes, private structures and facilities, fishing and other industrial and commercial uses. Ecotourism, recreational boating, commercial fishing and aboriginal fishery activities also occur.

Agricultural Use Areas incorporate all existing Agricultural Land Reserve (ALR) land parcels greater than 250 hectares in size, including those within municipal boundaries and within settlement concentration areas. Areas not within ALR boundaries but used for agricultural production are

also included in this category (98,000 ha or 2.9% of the Island). Land-based agricultural activities are the major uses identified in this category, although they are undifferentiated as to crop. The majority of these lands are private. The ALR was established in 1973 to minimize the conversion of BC's agricultural lands to urban and associated uses.

The Private Lands category shows forest land under private ownership in 1993. There are approximately 678,000 ha of private land on the Island (20.2%). A large component of this area is classified as Managed Forest (MF) under the *BC Assessment Act*. The benefit of this land classification is primarily tax-related, but the owner must commit this land to remain in forest production, in the process addressing the need for sustainable forestry in the future. Timber harvesting and forest-related activities are the dominant use of land in this category; although water production and supply is also significant, as are utility lines. The majority of community watersheds and water supply areas are found in this category, as are important fish streams and watersheds, and related recreational uses. For non-forest uses, this same land may be subject to individual bylaws and zoning regulations of municipalities or regional districts due to their proximity to settlement areas.

Map 7 also shows Settlement Lands, which are primarily found along a narrow strip of the Island's southeast coast. They include all existing settlement use concentrations and First Nations Reserves that were developed or had concentrated development. The category does not include unorganized areas within regional district boundaries. The land use category in **Map 7** primarily reflects existing municipal boundaries and areas of concentrated or dispersed residential development. Land use is normally administered in these areas by the appropriate local government or First Nations council.

Maps:

6 - Selected Fish And Wildlife Resources

7 - Pre Decision Land Use Patterns

MAP 6: Selected Fish and Wildlife Resources

128°45'00" 127°30'00" 126°15'00" 125°00'00" 123°45'00"

LEGEND

Fish & Wildlife Resources

- Protected areas
- Deer & elk winter range
- Waterfowl wintering areas
- Critical fishery and wildlife habitat such as herring and shellfish spawing, shellfish and salmon rearing
- Endangered or threatened wildlife species (eg. Marmots, Sea Otters) and high value eagle nesting
- High capability for marine birds, occasional marine mammal values (seabird colonies, feeding areas, sea lions)
- Known anadromous fish streams
- Lakes and rivers known to have fish
- Planning Area Boundary

Scale 1:1250000

0 10 20 30 40

Kilometres

Land Use Coordination Office
Albers Equal Area Conic NAD83

BRITISH COLUMBIA

September 26, 1999

MAP 7: Pre Decision Land Use Patterns

LEGEND

Pre Decision Land Use Patterns 1994

PROTECTED (EXISTING): Existing protected areas; includes large National and Provincial Parks, Ecological Reserves and Recreational Areas.

MULTI-RESOURCE USE: Includes Crown Lands and Private Managed Forest Lands within a Tree Farm Licence. These lands are managed according to integrated resource management principles and contain a wide range of resource values.

PRIVATE: Private Managed Forest Lands not within a Tree Farm Licence and other private lands not included in any other category.

SPECIAL USE: Includes small areas of intensive recreational land uses, such as ski resorts, and mines that are engaged in surface extraction of minerals. Recreational land uses within settlements are not included in this designation.

AGRICULTURE: Areas that can accommodate viable and sustainable food production; includes all land within the Agricultural Land Reserve and areas under cultivation that are not within the Reserve.

SETTLEMENT: Areas of human settlement; including the existing concentration of settlements as well as Indian Reserves.

Lakes

Planning Area Boundary

Scale 1:1250000

Kilometres

Land Use Coordination Office

Albers Equal Area Conic NAD83

BRITISH COLUMBIA

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1.3 Socio-Economic Profile

1.3.1. Population

The population on Vancouver Island in 1997 was 702,000, representing about 18% of the total BC population. Over the 1991-97 period, population on the Island increased by 112,000 or 19%. While increases occurred in all areas of the Island, most of the growth during this period took place in the southeast, in the Capital, Nanaimo and Cowichan Regional Districts. With the closure or downsizing of several wood processing facilities in Port Alberni and the closure of the Island Copper mine in Port Hardy, population growth in the Alberni-Clayoquot and Mt. Waddington Regional Districts was the lowest on the Island over the 1981-97 period.

There are 49 individual First Nations with 271 Indian Reserves on Vancouver Island. The main First Nations groups include the Coast Salish whose territory includes the southeast portion of the Island and adjacent areas, the Kwakwaka'wakw in the northwestern and northeastern portion of the Island, and the Nuu-chah-nulth First Nations on the west coast of the Island, from Jordan River to Brooks Bay. The proportion of the population on Vancouver Island with aboriginal origins is about 7%, approximately double the proportion for BC as a whole. Census data indicates that First Nations populations are growing faster than total populations for the Island and BC as a whole.

As shown in **Table 1**, total population is forecast to grow by 20% over the 1997-2012 period, despite expected population declines in the Alberni-Clayoquot and Mt. Waddington Regional Districts. This annual average growth rate is lower than in recent years.

1.3.2. Economic Structure

The economy of Vancouver Island reflects its geographic and ecological diversity. Economic diversity is reflected in economic dependency estimates in **Table 2**, which show "basic" income, or income flowing into local economies. Basic income includes wages and salaries earned in primary industries (e.g. forestry, tourism, mining) and related supplier industries, as well as non-employment sources of income from outside the regio.. (e.g. pension and investment income, government transfer payments).

Economic dependency estimates for 1996 show that the central and northern areas of the Island are dominated by the forest sector, whereas the economy of the southeast is more oriented to service sector activities driven by government employment, retirement incomes and tourism. Other resource sectors such as fishing and mining are also more important sources of basic income in the central and northern parts of the Island. Agriculture is more important in the southeast region.

In the past two decades, the Island economy has experienced a decline in primary industries. Changes in commodity prices, technology and other factors have caused upswings and downswings in the level of mining, which was instrumental in the establishment of many coastal communities. The richest mine on the Island was the Island Copper mine at the head of Rupert Inlet which operated from 1971 to 1995, producing copper, molybdenum, gold, silver, and rhenium. In late 1998, only one metal mine was in operation, the Boliden-Westmin copper-zinc-lead-silver-gold mine (1968 to present) at Buttle Lake near Campbell River. A coal mine near Quinsam Lake still produces high quality coal for export, and

Table 1 [illegible]

Regional District	1981	1991	1997	% Change 1991-97	2002	2012	% Change 1997-2012
Capital	249,473	299,734	337,980	13	348,506	387,485	15
Cowichan Valley	52,701	60,683	76,620	26	81,002	96,314	26
Nanaimo	77,101	101,736	130,177	28	144,512	181,313	39
Alberni-Clayoquot	32,558	31,224	34,689	11	32,520	31,131	-10
Comox-Strathcona	68,621	82,886	107,050	29	111,455	130,583	22
Mount Waddington	14,671	13,896	15,715	13	15,237	15,253	-3
Vancouver Island Total	495,125	590,159	702,231	19	733,232	842,079	20

Source: BC STATS

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Vancouver Island Total	495,125	590,159	702,231	19	733,232	842,079	20

Source: BC STATS

Table 2: [illegible]

(% OF TOTAL BASIC INCOME)

Regional District	FOR	MIN	FISH/ TRAP	AGR	TOU	PUB	CON	OTH[a]	TRAN[b]	ONE[c]
Capital	2	-	-	1	7	39	6	10	18	18
Cowichan Valley	22	1	1	2	4	23	8	5	21	14
Nanaimo	11	1	2	1	5	23	10	9	23	15
Alberni-Clayoquot	35	-	3	1	7	21	5	1	18	8
Comox-Strathcona	22	3	4	1	7	22	8	3	18	11
Mount Waddington	45	4	7	1	7	18	3	2	10	3

(a) "Other" includes other basic industries including parts of manufacturing, "hi-tech" and transportation. (b) Transfer payments include Employment Insurance, Canada Pension, Old Age Security and Income Assistance (c) "Other non-employment income", includes income from pensions other than CPP, and investments
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adjacent coal deposits are under evaluation for possible mining in the near future.

Changes in the traditionally dominant forest industry have been particularly rapid over the past 20 years, due to substantial rationalization and technological change within the industry. Employment in logging and processing in absolute terms and per cubic metre of harvest has declined significantly since 1980. Declines in forestry employment have been accentuated in recent years by timber harvest reductions. Those areas of the Island that are more reliant on forestry and other primary industries have been vulnerable to the "boom and bust" cycles of international commodity markets. These trends have resulted in higher levels of unemployment and social assistance and population declines in some areas (e.g. Mt. Waddington Regional District).

The past two decades have also demonstrated growth in the importance of service industries and light manufacturing. Particularly strong growth has been evident in tourism, and high technology industries. The attractiveness of the Island quality of life with all of its natural amenities, has encouraged growth in these new businesses, and has attracted retirees and "urban refugees" that are not dependent on resource sector activity.

The 1996 Tourism Resource Inventory for Vancouver Island identified 2,300 businesses directly involved in tourism. This is exclusive of companies such as restaurants, gas stations and other retail businesses that derive a part of their income from tourism. Accommodation facilities (motels, hotels, lodges and campgrounds) are a key indicator of the health of the tourism industry, and Vancouver Island has traditionally accounted for about 20 per cent of the province's total earnings from this segment. Almost half of Vancouver Island's total accommodation earnings come from sport fishing lodges, which rely on healthy fish populations and inspiring scenic settings.

Table 3 presents the distribution of the labour force by industry on the Island for 1996. The total labour force was about 326,510 in 1996, of which 254,000 were in the service sectors with the remainder in goods producing industries. While total labour force grew by 12% over the 1991-96 period, the labour force in the goods producing sectors grew by only 5% over this period. The labour force in agriculture, logging and forestry, non-primary manufacturing (including value-added wood processing) and construction grew over the 1991-96 period, but there were significant declines in primary wood processing, fishing and mining. The service sector labour force as a whole increased by 14% over the 1991-96 period, reflecting population growth and diversification of the economy.

As a result of these trends, the relative importance of the service sector grew over the 1991-96 period (from about 76% to 78%) while the importance of goods producing labour force declined (from 24% to 22%). This is a continuation of a similar trend over the 1981-91 period for the Island and the province as a whole.

Despite a history of economic cycles related to changing forest product market conditions, many areas and communities on the Island have become more diversified and have experienced economic and population growth.

1.3.3 Social Characteristics

The unemployment rate on the Island was approximately 9.5% in 1996, about the same as in 1991 and similar to the rate for BC as a whole. About 8.3% of the Island's population received BC Benefits at year-end 1997. Unemployment and social assistance rates varied among Regional Districts, with the lowest rates in the Capital Regional District. Generally, unemployment and social assistance rates are significantly higher among First Nations people and, to a lesser extent, in areas of the Island that are more resource dependent. The First Nations unemployment rate is about three times that of the rest of the population. Crime rates also tend to be higher and education levels lower in more resource dependent areas of the Island.

The self-employed proportion of the labour force was about 15%, slightly higher than for BC. The

Table 3: Experienced Labour Force for Vancouver Island and BC by Industry

(% of total basic income)

Sector	Vancouver Island 1991		Vancouver Island 1996			British Columbia 1996	
	Labour Force	Proportion of VI Total (%)	Labour Force	Proportion of VI Total (%)	% Change VI 1991-1996	Labour Force	Proportion of BC Total (%)
Agriculture	4,635	1.6	5,215	1.6	12.5	44,865	2.3
Fishing & Trapping	4,615	1.6	4,290	1.3	-7.0	8,850	0.5
Forestry & Logging	10,565	3.6	10,740	3.3	1.7	39,390	2.0
Wood, Pulp & Paper Veneer & Plywood Mills	12,920	4.4	11,775	3.6	-8.9	68,310	3.6
Mining	1,765	0.6	1,505	0.5	-14.7	15,935	0.8
Manufacturing*	12,105	4.2	14,195	4.3	17.3	159,905	8.3
Construction	22,260	7.6	24,745	7.5	11.2	129,925	6.8
Transportation & Storage	10,830	3.7	11,760	3.6	8.6	89,275	4.6
Communications & Other Utilities	6,625	2.3	6,590	2.0	-0.5	53,030	2.8
Trade (Wholesale & Retail)	47,890	16.4	52,745	16.1	10.1	330,335	17.2
Finance, Insurance & Real Estate	13,490	4.6	15,265	4.6	13.2	109,975	5.7
Business Services	13,880	4.8	17,610	5.4	26.9	129,110	6.7
Accommodation, Food & Beverage Services	25,370	8.7	29,250	8.9	15.3	160,830	8.4
Government Services	33,840	11.6	35,240	10.7	4.1	111,420	5.8
Educational Services	20,310	7.0	24,035	7.3	18.3	130,980	6.8
Health & Social Services	29,035	10.0	35,460	10.8	22.1	180,245	9.4
Other Services	21,515	7.4	26,090	7.9	21.3	159,880	8.3
TOTAL	291,650	100	326,510	100	12.0	1,922,260	100

*(Includes value added wood processing)

Source: BC STATS: Includes very small labour force contributions from Central Coast portions of Mt. Waddington and Comox-Strathcona Regional Districts.

Table 2: Current (1996) Basic Sector Resident Income Dependencies On Vancouver Island by Regional District

(% of total basic income)

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The unemployment rate on the Island was approximately 9.5% in 1996, about the same as in 1991 and similar to the rate for BC as a whole. About 8.3% of the Island's population received BC Benefits at year-end 1997. Unemployment and social assistance rates varied among Regional Districts, with the lowest rates in the Capital Regional District. Generally, unemployment and social assistance rates are significantly higher among First Nations people and, to a lesser extent, in areas of the Island that are more resource dependent. The First Nations unemployment rate is about three times that of the rest of the population. Crime rates also tend to be higher and education levels lower in more resource dependent areas of the Island.

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labour force participation rate increased over the 1991-96 period, primarily due to a continued increase in women's labour force participation. The proportion of full time workers declined over the 1991-96 period, while the self-employed proportion of the labour force has increased.

1.3.4 Anticipated Socio-Economic Trends

The Island's population and economy are expected to continue to grow, with variations due to business cycles. Growth will likely be higher and more consistent in the southeastern portion due to in-migration, continued growth in service and light manufacturing, and the stabilizing influence of local, provincial and federal government employment. Growth will be lower in the central areas, and perhaps even negative in the northern portion of the Island, due to the greater dependence on resource industries.

These expected differences in sub-regional economic growth might partially reflect redistribution of population on the Island, and not just population flows on and off the Island.

While forestry will likely remain an important resource industry on Vancouver Island, it will likely decrease in absolute and relative terms due to harvest declines and continued rationalization and technological change in the industry. The value-added sector will continue to grow particularly with recently announced government initiatives such as the Jobs and Timber Accord and changes to the Small Business Forest Enterprise Program of the Ministry of Forests.

Due to the federal government buyback program, salmon fisher employment will likely continue to decrease, although incomes may be stabilized. Employment in other fishery sectors is expected to increase due to development and diversification. Aquaculture activity is likely to increase over time. Due to the hidden nature of mineral resources and international markets and prices, mineral exploration and development will likely continue its historical cyclical pattern. Activity in the oil and gas sector will depend on the future of the federal/ provincial moratorium on offshore exploration.

The historical increase in the relative importance of tourism and other components of the service sector (e.g. high tech and film industries), light manufacturing and pension and investment incomes will likely continue. These shifts in economic structure will be reinforced by the in-migration of retirees to the Island, the aging of the resident population, increasing demand for and scarcity of wilderness recreation opportunities, technological change and resource depletion.

Trends in tourism and demographics suggest Vancouver Island will continue as a world leader in ecotourism, adventure tourism and cultural tourism, all of which rely on a close relationship between the tourism operation and the land base. The best available data on resources shows the Island has the resource wealth to support continued sustainable development of tourism businesses.

The settlement of modern treaties with First Nations may be a source of economic growth on the Island as a result of First Nations investments and development initiatives, and resolution of uncertainties for, and partnerships with other investors.

The Planning Process

The Vancouver Island Land Use Plan process has been a complex undertaking. The various components of the process and their relationships are represented in **Figure 1**.

2.1 The CORE Process

The Vancouver Island regional planning process began with the work of the Commission on Resources and Environment (CORE). CORE was formed in January 1992 to provide Cabinet with independent advice on land use and related resource and environmental issues. CORE was specifically tasked with making land use recommendations for three regions of the province, including Vancouver Island, and decided to formulate these recommendations using regional planning tables.

The CORE planning process for Vancouver Island began in August 1992. CORE staff worked extensively with interest groups, industry, local and provincial governments, and First Nations to form 14 "sectors" of interest to be represented at its regional land use planning table. In addition to having a representative at the planning table, government assisted the process by providing staff from relevant provincial government agencies for policy, program, technical and analytical support.

The Plan Area boundary was established early in the process by CORE, in consultation with the Table, and excluded the Islands Trust area (at the request of the Islands Trust Council), and the Clayoquot Sound area (at government's request).

The CORE table held over 47 days of meetings during the next year. Despite achieving a number of contributing products, the table was unable to reach consensus on land and resource management recommendations and was disbanded in October 1993.

CORE staff used the deliberations and products of the table to develop a recommended Vancouver Island Land Use Plan. The three-volume report was presented to Cabinet and publicly released in February of 1994.

2.2 Government Land Use Decision

On June 22, 1994, the Province formally responded to CORE's recommendations with the "Vancouver Island Land Use Plan Decision". This broad policy-level document provided limits for the amount of protected area in the Plan and identified broad land use designations for Crown and private lands. These zones consisted of protected area (PA), low intensity area (LIA), general forestry area (GFA), high intensity area (HIA), settlement area and agricultural area. The decision also provided a Vancouver Island Jobs Strategy, committed to building a North Coast Trail, and lead to the creation of community resource boards for interested resource-based communities.

2.3 Completing the Plan

Cabinet's land use decision constituted a decision in principle, which established goals for land use on the Island. In order to achieve these commitments the initiatives listed in this section were implemented following Cabinet's decision.

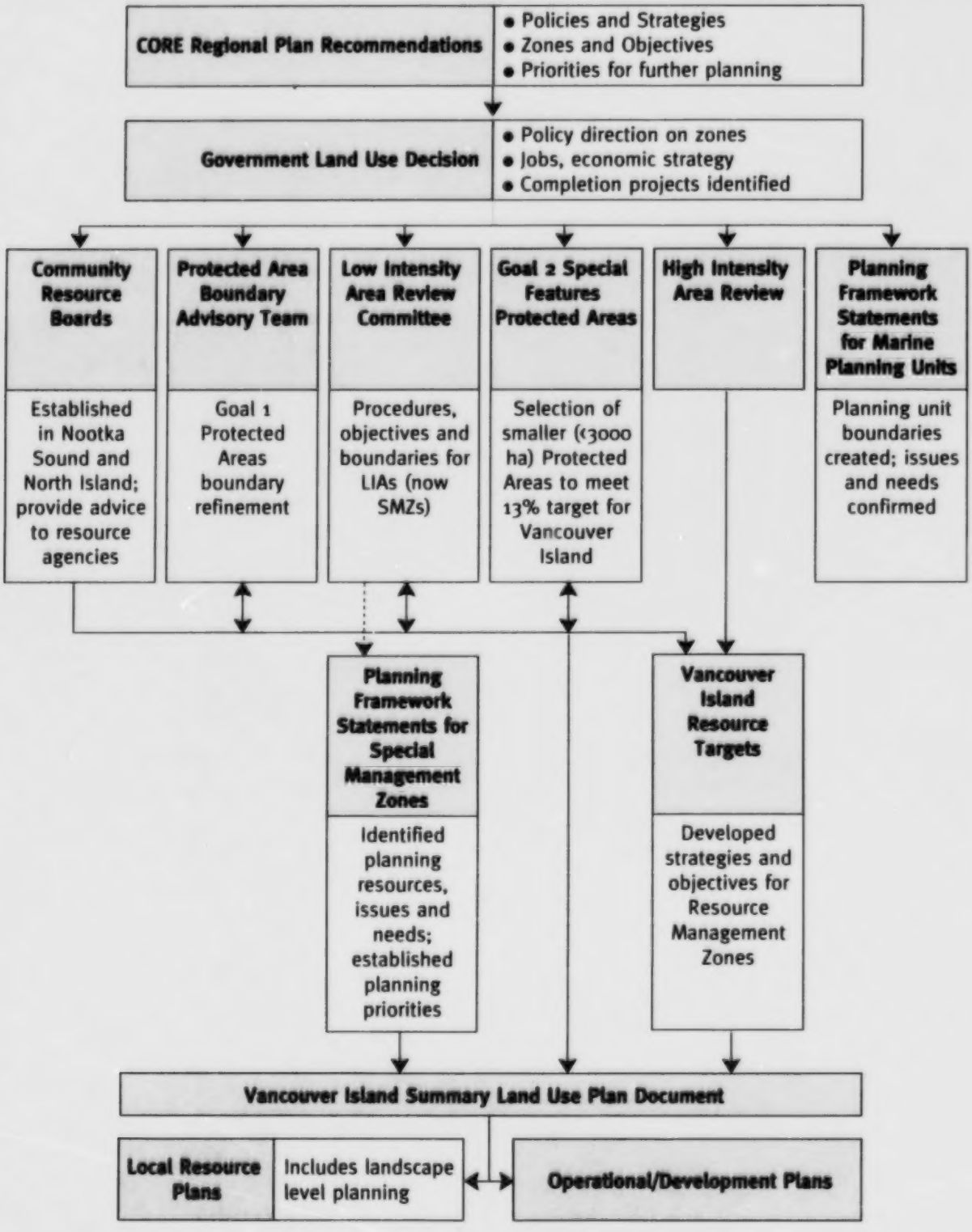
Community Resource Boards

During the next year, government undertook negotiations with affected local governments who had expressed an interest in developing community resource boards. This led to the establishment of the Mt. Waddington Community Resource Board (CRB) and the Nootka Resource Board as pilot projects, funded by government to provide recommendations and advice on various aspects of implementing the land use plan.

Protected Areas Boundary Advisory Team (PABAT) Report

A government inter-agency Protected Areas Boundary Advisory Team (PABAT) was established in 1994 to undertake a review of the boundaries of new protected areas established in the 1994 land use decision. These protected areas had been selected by

Figure 1: Components of Strategic Plan Development for Vancouver Island


CORE Regional Plan Recommendations
• Policies and Strategies
• Zones and Objectives
• Priorities for further planning
Government Land Use Decision
• Policy direction on zones
• Jobs, economic strategy
• Completion projects identified
Community Resource Boards
Established in Nootka Sound and North Island; provide advice to resource agencies
Protected Area Boundary Advisory Team
Goal 1 Protected Areas boundary refinement
Low Intensity Area Review Committee
Procedures, objectives and boundaries for LIAs (now SMZs)
Goal 2 Special Features Protected Areas
Selection of smaller (<3000 ha) Protected Areas to meet 13% target for Vancouver Island
High Intensity Area Review
Planning Framework Statements for Marine Planning Units
Planning unit boundaries created; issues and needs confirmed
Planning Framework Statements for Special Management Zones
Identified planning resources, issues and needs; established planning priorities
Vancouver Island Resource Targets
Developed strategies and objectives for Resource Management Zones
Vancouver Island Summary Land Use Plan Document
Local Resource Plans
Includes landscape level planning
Operational/Development Plans

CORE on the basis of planning table proposals and government technical team candidates which met PAS selection criteria.

Submissions were requested and received from stakeholders, First Nations, key advocacy groups and concerned local governments. Direct consultations were held in Victoria and eight other island communities. In addition, approximately 70 written submissions were received from participants.

The PABAT Report was presented to government in October of 1994. Following an additional review with key stakeholders, Cabinet endorsed a final set of boundaries on April 11, 1995, which set the size of the new protected areas at 78,342 hectares.

Low Intensity Areas Review Committee (LIARC) Report

A three-person government technical group was established in July of 1994 to address the issue of Low Intensity Areas (LIAs). The Committee prepared and distributed information to key stakeholders, interest groups and other parties previously involved in the CORE and PABAT planning processes. A consultant was retained to encourage submissions from First Nations. Approximately 45 written submissions were received from a variety of sources.

The Committee's report was delivered in January of 1995. Government acceptance of its recommendations was announced on April 11, 1995. The announcement confirmed the LIA boundaries and unveiled a number of initiatives designed to increase the availability of timber to communities and improve community economic stability.

Special Features Protected Areas

The 1994 land use decision stated that area reductions resulting from review of the new protected areas would be used in a process to establish "special feature" or "Goal 2" areas of the Protected Areas Strategy. The intent of Goal 2 was to set aside smaller areas (normally less than 1,000 hectares in size) to preserve natural, cultural, heritage or recreational features of regional, provincial, national or global significance. Approval of the PABAT recommendations on April 11, 1995 confirmed the availability of up to 11,770 hectares for this process.

Background material issued with the 1994 land use decision had indicated that a priority would be given to identifying special feature areas in the Quadra-Cortes-Read Islands area, as well as along the south eastern side of the Island (Nanaimo Lowlands) where much of the land was privately owned.

Technical work for this process was assigned to a government inter-agency Regional Protected Areas Team. The team initially requested nominations for "areas of interest" from First Nations, local governments, provincial and federal agencies, and stakeholder groups. The initial 300 nominations were screened against the official PAS criteria, and the resulting draft list distributed to interested parties for further comment. Following this public review, the list was refined to 78 areas, encompassing about 35,000 hectares. The technical team carried out further evaluation and study to reduce the overall area to approximately the size limit identified by government.

The special feature protected areas decision was announced in February of 1996. The selected areas represented a range of special values across the Island, in accordance with PAS Goal 2 criteria.

Resource Management Zones (Resource Targets) Report

The 1994 land use decision had directed that lands suitable for high intensity forestry would be identified from within General Forestry Areas. A decision was made to follow a technical exercise, focused on the identification of broad "targets" for levels of resource use in all of the Crown tenured forest land reserve zones. This process was initially termed the VIRT process (Vancouver Island Resource Targets).

A small " VIRT technical team" was struck in May of 1995, with seven members representing government staff, the forest industry, and environmental forestry consultants. A working group, reporting to the Forest Sector Strategy Committee, was formed to provide feedback on the team's work. It included representation from government, First Nations, community, industry and interest groups.

The targets approach was subsequently abandoned; the technical team's role was redefined to identify High Intensity Area (HIA) boundaries, and to develop management objectives and strategies for all zones consistent with the Forest Practices Code and the LIARC Report. The team was also requested to incorporate new, regional-scale requirements on landscape biodiversity in the development of the zones and their objectives.

An interim report was released in April 1996 based on input received on a workbook distributed to stakeholders, interest groups, government agencies and First Nations. It also used written submissions and comments from the two community resource boards, forest companies, and other groups.

Over 50 submissions were received in response to the interim report. They led to further work and refinements to the report, and a public discussion forum was held in June of 1997. Further feedback resulted in additional changes and in December 1997, a report was released for public review. This report, **Resource Management Zones for Vancouver Island (RMZ)**, presented final recommendations of the technical team on management objectives and zone boundaries. Considerable feedback was received on this report and its map, and resulted in a number of changes to the work of the technical team. The final outcome has been incorporated into this Summary Plan.

Special Management Zone (SMZ) Planning Framework Statements Report

To provide general guidance to local and sub-regional planning, LIARC recommended that "planning frameworks statements" (PFS) be prepared for each LIA (now titled Special Management Zones, or SMZ, in keeping with provincial standards), to provide interim general direction and priorities for more detailed and sector-focused planning and management activities. It suggested any sub-regional or local resource management plans be consistent with the approved LIA Management Guidelines and pertinent Planning Framework Statement. The Vancouver Island Inter-Agency Management Committee (IAMC) was given the responsibility of developing these PFSs.

The report 'Planning Framework Statements for Vancouver Island's Special Management Zones' (PFS-SMZ report) was prepared from August to October, 1996 through visits to local offices of government agencies, licensees and interest groups. Telephone interviews were also conducted with key contacts including community resource boards. Additional sources of data, such as the provincial Conservation Data Centre, were accessed to develop specific aspects of the report. The emphasis in this exercise was to consolidate readily available information and identify planning issues, rather than to organize a new round of SMZ planning.

A revised version of the report was released to the public for review in December 1997 along with the RMZ report. In response to this review, additional information was gathered from the general public, non-governmental organizations, industry and government agencies. As a consequence, revisions to the PFS-SMZ Report were made to capture the important elements of resource management issues, rather than detailing current information within each zone.

Marine Planning Units (MPU) Planning Framework Statements Report

The Plan Area includes a substantial area of foreshore and ocean within its boundaries. While coastal planning was not directly addressed in CORE table negotiations, CORE's report to government did incorporate coastal waters in its proposed land use designations.

The 1994 Decision was focused primarily upon forestry related issues and consequently provided little direction for further coastal planning. However, it reinforced the recommendations from CORE by confirming portions of the coastal waters in various zones, including a reference to 34,000 ha of foreshore and ocean, suitable for aquaculture, to be part of an "Agriculture" zone. The government's decision document did not include a plan designation map, and consequently the zoning status of coastal areas remained unclear.

To address this problem, the Vancouver Island IAMC developed a set of Planning Framework Statements for coastal areas within the Plan Area, similar to the statements developed for the Special

Management Zones. The coastal area was divided into Marine Planning Units (MPUs) and work was initiated to develop brief, interim statements identifying known resources, issues, and future planning considerations as well as priorities.

The document **Planning Framework Statements for Vancouver Island's Marine Planning Units** was initially developed by government agency technical staff and distributed for public review in November of 1997, accompanied by a work book to capture additional values or issues in the identified planning units. Few comments were received from the public, local governments and government agencies, but those received primarily emphasized the need for future planning of the coastal zone, and expressed concern about the identification of a zone to accommodate aquaculture. A revised document was prepared for the IAMC by planning consultants in March of 1998, and approved by the IAMC as a component of this Summary Land Use Plan.

2.4 First Nations Participation

The involvement and participation of First Nations has been encouraged at all stages of the land use planning process. Actual involvement has varied with each specific project, but in general, has been minimal for a number of reasons that include time and capacity to participate and concerns about implications for treaty negotiations.

During the CORE process, seats were left open at the planning table for First Nations participants. A consensus agreement was reached between the Nuu-chah-nulth Tribal Council and the planning table in July 1993 regarding the interpretation of the term "without prejudice". However, this did not result in formal participation in the CORE process. Some groups attended on a regular basis in the capacity of observers. First Nations did not participate in the development of CORE's recommendations to government.

The government's 1994 Decision affirmed that the land use designations and objectives were without prejudice to aboriginal rights and treaty negotiations, and that government intended to respond to the concerns expressed by First Nations in government-to-government discussions. Government subsequently met with First Nations representatives to explain the land use decision and identify the opportunities that would be available in subsequent plan completion activities.

First Nations participation was encouraged and solicited in all subsequent plan completion initiatives. In the protected areas boundary review process, First Nations were sent copies of all boundary material and requested to provide comments and concerns. A consultant was specifically engaged to obtain First Nations perspectives. Much of the response was related to treaty concerns about protected areas, rather than specific boundary issues.

In the review of low intensity areas, information packages were also distributed to all First Nations. Submissions were received from a number of band offices, councils and commissions. Their comments were used in the boundary refinement process and in development of protocols associated with these zones.

In the special features protected areas process, First Nations were provided with a number of opportunities to identify, confirm or express concerns about candidate areas, and were provided with advance notification of government's final list of areas. However, most responding First Nations were as much concerned over the implications on treaty negotiations of establishing protected areas as the location of any specific protected area.

In the development of the Resource Management Zones document, First Nations were invited to provide specific information and to comment upon reports throughout the process. However, very few comments were received on the interim and final reports. A First Nations representative did, however, participate as a member of the technical team's advisory group.

First Nations response to the Planning Framework Statement documents for Special Management Zones and Marine Planning Units was also solicited, with minimal response.

Throughout these processes, government has consistently conveyed to First Nations the message that their participation in the planning process is

without prejudice to subsequent treaty negotiations on land and resources. It has also confirmed that the land use zoning and management decisions of the planning process do not infringe upon legally confirmed aboriginal rights of First Nations or treaty rights, unless related to public safety or conservation issues.

2.5 Related Initiatives

Since the 1994 land use decision, a number of separate government initiatives have been undertaken which influence land use and management on Vancouver Island. They include special studies or reports, pilot projects, new legislation and programs, and program changes. Such initiatives have necessitated alterations in the plan completion work or provided new perspectives or approaches to be considered. Some of the more important initiatives are mentioned below.

Forest Practices Code

- Passed in the BC legislature in July 1994 to change and improve forest land use and forest management in BC.
- New provisions for biodiversity, watershed assessment, terrain stability, riparian management areas, cutblock size and green-up.
- Chief Forester of BC policy in December 1996 required all Forest Regions to develop draft boundaries for landscape units (LU) and associated draft biodiversity emphasis options (BEOs) by October 31, 1997.
- Based on the landscape units and BEOs, a "Regional Landscape Unit Planning Strategy" (RLUPS) was designed to establish the framework and general direction for implementation of biodiversity-oriented planning of forest use at a more detailed level.
- *Forest Statutes Amendment Act* (July1997) and amendments to four key regulations under the Code (deposited in April 1998) resulted in changes intended to streamline the Code and reduce costs and red tape, while maintaining environmental standards.

Enhanced Forest Management Pilot Project

- Initiated from a report by the Forest Sector Strategy Committee identifying the need for pilot projects to address timber supply reductions.
- MacMillan Bloedel's TFL 39, Block 2 (Adam and Eve watersheds) selected as one of the pilot areas in April of 1996. A MacMillan Bloedel-led working group is coordinating the pilot project.
- An implementation progress report is to be delivered in January 2000.

Provincial Special Management Zone Initiative

- SMZ issues led to a "SMZ Action Plan" and formation of a province-wide SMZ working group to advise government.
- Action Plan is currently underway and includes a review of consistency in SMZ boundary delineation and criteria, review and approval processes for industrial activities, resource impact limits, implications of Forest Practices Code management provisions, and nature of more detailed planning in SMZs.
- Pilot areas may be used to clarify, deliver and implement SMZ objectives in approved land use plans.
- This work is to be completed during the year 2000.

Mineral Exploration and Development Initiatives

- *Mining Rights Amendment Act* passed in 1998, confirming the right to access mineral and coal tenures and carry out responsible mining activities in all land use zones outside of legally designated Protected Areas and other Crown lands reserved from subsurface tenure disposition.
- The Ministry of Forests must issue a special use permit to a mineral tenure holder for appropriate ground-based access to the tenure, subject to terms and conditions of the Chief Inspector of Mines. The Chief Inspector must consider resource management objectives and zones from a land use plan in making the decision on approval.
- *Mineral Exploration Code* (MX Code) passed in 1998 contains standards for mineral and coal exploration activities within an updated, permit review process.

- Specific standards are established for operations in areas such as community watersheds and riparian zones that are harmonized with the Forest Practices Code, but reflect the unique requirements of the mineral, coal and placer industries.

Local Government Initiatives

- *Growth Strategies Act*, enacted in June 1995, provides a framework for local governments to address and regulate growth within the regional districts of southeast Vancouver Island.
- Regional growth strategies have been initiated for the Capital, Nanaimo and Comox-Strathcona Regional Districts.
- Strategies will take into account provincial government objectives and programs, including the zoning and management of adjacent Crown lands in the Vancouver Island Land Use Plan.

Clayoquot Sound Initiatives

- Clayoquot Sound (approximately 350,000 ha) has a long history of debate over land use and resource management, due to increasing conflict over old growth forest values and issues of environmental and economic sustainability.
- A series of community based planning initiatives was sponsored by government in the late 1970s.
- Government assumed responsibility for completing a plan for the area after deadlock resulted in disbanding of the last of these initiatives in October 1992.
- Government released the Clayoquot Sound Land Use Decision in April 1993.
- Due to government commitment to resolve the Clayoquot Sound issues, the area was excluded from the Vancouver Island CORE plan area, and from the government's 1994 Land Use Decision.
- In June 1993, government established a Scientific Panel to review and make recommendations on forest management practices in Clayoquot Sound. This Panel delivered its final report to Cabinet one and a half years later.
- A 1994 Interim Measures Agreement between the province and the Central Region Chiefs of the Nuu-chah-nulth Tribal Council created a Central Region Board with authority to review any resource management or land use planning decision in Clayoquot Sound. This agreement was renewed in 1996 and a further renewal is being discussed.
- Government announced in July 1995 it would fully implement the Panel's 120 recommendations.
- Implementation of the Scientific Panel recommendations has been undertaken by government, industry and a Central Region Board, made up of First Nations and other local communities.
- In early 1999, the Province, with the support of both local communities and First Nations, agreed to sponsor an application to UNESCO to designate Clayoquot Sound as an international biosphere reserve.

Strategic Direction

The strategic direction in this section is derived from government's 1994 Land Use Decision, CORE's 1994 Recommended Land Use Plan, government's 1996 Special Feature Protected Areas Decision, and its 1997 Resource Management Zones Report.

3.1 Establish a Protected Areas Network

3.1.A The provincial Protected Areas Strategy (July 1993) affirms government's intent to double the amount of provincial land in protection by the year 2000, for conservation, recreation and cultural heritage purposes. This strategy includes the need to protect key under-represented ecosystems (Goal 1), and to increase the protection of unique areas with special recreational, cultural and environmental features (Goal 2). The Vancouver Island Land Use Plan is the primary mechanism for contributing to the Protected Areas Strategy on Vancouver Island.

3.1.B Due to the Island's ecological diversity and exceptional natural values, and an ever-increasing demand for recreation and tourism opportunities, the amount of land designated as Protected Area is increased from 10.3% to 13% of the Plan Area to meet PAS Goal 1 and Goal 2 objectives.

3.1.C Where Protected Area designations are made on Crown land, these areas will be immediately secured through legislation, after appropriate review of boundaries. Private lands identified for possible protection as Goal 2 PAS sites will be pursued for acquisition through land exchange or purchase, subject to willingness of owners, and based on fair market value for the properties. If such areas are not obtained, government will pursue acquisition of other sites with similar features to achieve its 13% commitment, with priority given to underrepresented areas on southeastern Vancouver Island.

3.1.D Government will transfer four significant protected areas to regional districts for regional park purposes, reflecting historically strong local interest and to support the further development of regional park systems on Vancouver Island.

3.1.E To foster economic diversity in the north Island, and to promote additional recreational opportunities, a new North Coast trail will be developed in conjunction with the establishment of new protected areas and Special Management Zones between Cape Scott and Port Hardy.

3.2 Secure the Forest Land Base

3.2.A Vancouver Island forests are of continued importance to the economic and social well being of its communities as well as all of British Columbia. Forested lands must be carefully conserved and managed to maintain and foster a variety of forest-based uses in the Plan Area. In the Plan Area, 81% of the land base will be secured as the forest land base for commercial timber use, recreation and tourism, mining and other sustainable resource-based activities.

3.2.B A Forest Land Reserve will be established to ensure that Crown forest land and privately managed forest lands on Vancouver Island are protected from unnecessary urban encroachment or conversion for other purposes. The Special Management, General, and Enhanced Forestry zones identified in this Plan will be part of the Forest Land Reserve and will be managed under the Forest Practices Code.

3.2.C A number of non-protected forest lands display regionally significant combinations of recreational, environmental and cultural values. The Plan recognizes the sensitive nature of these lands to development activities by including them as Special Management Zones within the Forest Land Reserve. Commercial resource development will be subject to the Forest Practices Code and strategic and operational planning to minimize the impact on the identified special values. Up to 6.4% of the Plan Area will be established as Special Management Zone, and 8% on Vancouver Island when including comparable designations in Clayoquot Sound.

3.2.D The Plan will identify Enhanced Forestry Zones which have particular potential for increased

commercial timber production and more labour-intensive forest management through intensive reforestation, spacing, pruning, thinning, and new harvest practices.

3.3 Provide Regional Biodiversity Direction

3.3.A The preservation of biodiversity is an important element of the Vancouver Island Land Use Plan. The protected areas network established under this Plan is the cornerstone for the preservation of biodiversity on Vancouver Island by protecting key old growth forest ecosystems and special ecological features. Special Management Zone areas will become vanguard areas for implementing the principles of sustainable forest ecosystem management. SMZ areas contain concentrations of special resource values, including old growth forests with high biodiversity values, and serve as regional scale linkages among protected areas in support of biodiversity objectives.

3.3.B The biodiversity provisions of the Forest Practices Code will be applied across all resource management zones - special, general and enhanced - to maintain representative areas of old growth forest, and other elements of biodiversity conservation. This will be implemented through landscape unit planning in accordance with provincial policy, and consistent with higher level plan objectives resulting from the Land Use Plan. Boundaries of resource management zones and landscape units will be aligned to the greatest extent possible, and biodiversity emphasis assignments to landscape units will be integrated with the management priorities of the resource management zones.

3.4 Support Food Production Activities

3.4.A Food production is vital to the Island's food security and important to its economy and lifestyle. Food production activities, including agriculture, commercial fisheries and aquaculture, contribute to economic diversity, employment and income levels. Food producing areas are finite and will become ever more important with the anticipated population growth on the Island. Commercial fisheries production relies on abundant and diverse fish stocks, the protection (and, where warranted) the restoration of marine fish habitat, and the maintenance of fishing opportunities in areas where seafood species can be sustainably and economically harvested. The Land Use Plan affirms the importance of maintaining good food producing areas to meet the future food needs of society, and the need for careful planning of new Crown land based production areas so they are designated and used in a manner that minimizes conflict and maintains environmental quality.

3.4.B Previous land use decisions, inherent capability and production records highlight the significance of specific areas of intensive shellfish farming. The Land Use Plan affirms the importance of maintaining high capability beaches and nearshore areas of Baynes Sound, Nanoose Bay, Cortes Island, south Read Island and southeast Quadra Island as shellfish growing areas, including the need to maintain water quality.

3.4.C The continuation of land-based agriculture depends in large part on maintenance of the Agricultural Land Reserve (ALR), created in 1973 to maintain agricultural opportunities on suitable undeveloped land and to minimize the conversion of existing farmland to urban uses. At present, approximately two-thirds of the ALR on Vancouver Island is currently not in agricultural production or is under-utilized. Expansion of agricultural production to meet the steadily increasing needs of local and non-local markets can readily be accommodated. The Land Use Plan affirms the role of the Agricultural Land Reserve by designating ALR lands as Agricultural Land in the Plan Area.

3.5 Recognize Settlement Lands

3.5.A Settlement patterns and activities have a significant influence on the use of Crown land and resources. Much of the southeastern portion of Vancouver Island is private land within municipal boundaries, or within First Nation reserves. The Land Use Plan's land allocation system recognizes existing settlement lands as "Settlement Area," and acknowledges that land use decisions in this category (approximately 3% of the Plan Area) are primarily

the responsibility of local government under the *Municipal Act* and First Nations under the *Indian Act*. This zone does not allocate Crown lands for future settlement expansion.

3.5.B In situations where local governments have enacted foreshore and water zoning within their boundaries, the intent of the Vancouver Island Land Use Plan is to promote compatibility between these zones and regional land use designations.

3.5.C Significant public resource values exist within the Settlement Area category, including critical fish and wildlife habitat, water resources, and recreation. These values are sensitive to continued urban growth and increased settlement activity. The Land Use Plan confirms the importance of proper management of these resources and commits provincial agencies to working co-operatively with local and regional governments to ensure their appropriate recognition, management and planning.

3.6 Maintain Energy and Mining Opportunities

3.6.A Energy and minerals are to a large extent "hidden" resources that are not readily apparent or remain untapped until appropriate market conditions or societal needs warrant their use. The Land Use Plan reflects the extent of current knowledge and preferences respecting energy and mineral development on Vancouver Island.

3.6.B Government, through existing legislation and policy, encourages the responsible exploration and development of mines and energy resources on Vancouver Island, and recognizes the rights to access mineral, coal, oil and gas and geothermal tenures and conduct exploration and development activities.

3.7 Address Integrated Coastal Management

3.7.A The coastal resources of Vancouver Island are important contributors to the region's environment, lifestyle, cultures, and economy. The province's 1998 Coastal Zone Position Paper establishes a number of principles and goals for achieving sustainable coastal zone management, including the increased use of coastal zone planning at a variety of different levels. The Land Use Plan affirms the need to achieve integrated coastal management by establishing coastal planning units and priorities for more localized planning in those units, for a variety of potential uses.

3.7.B Planning and management of the Plan Area's coastal zone is subject to a complex array of existing jurisdictions involving local, provincial and federal agencies. Consistent with the Coastal Zone Position Paper, this Land Use Plan will be implemented in collaboration with affected jurisdictions and interests in the design and development of localized planning in the Island's coastal units.

3.7.C The Land Use Plan has identified up to 13% of the Island as land-based protected areas. However, the coastal zone contains many areas that may warrant various levels of protection for unique or special ecological, recreational, and cultural values. A joint federal/provincial Marine Protected Areas Strategy affirms the intent to establish a network of marine protected areas through planning processes at various levels. The Land Use Plan will reflect this strategy by promoting localized coastal planning in Vancouver Island's coastal units to address potential Marine Protected Areas.

3.8 Promote Community Stability

3.8.A Many Island communities are extremely sensitive to changes in the use and allocation of land and natural resources, including those generated by land use planning. Such resource-dependent communities tend to be located outside of the larger settlement belt of southeast Vancouver Island, and feel vulnerable to decisions made by non-residents that affect their future. The Land Use Plan recognizes the need for local input and influence through such mechanisms as community resource boards in the Nootka Sound and Mt. Waddington Regional District areas, to provide advice on implementing and monitoring the Plan and related resource management policies.

3.8.B Changes in the availability and economics of major resource industries, including forestry, fishing and mining, have affected employment levels on Vancouver Island. Forest Renewal BC was created in 1994 to use stumpage revenues to renew BC's forests

and create jobs through investments in local forestry projects, such as watershed restoration, road rehabilitation and intensive silviculture. The Land Use Plan commits government to utilizing Forest Renewal BC programs and subsequent, related programs to offset job losses created by the implementation of the Plan, as well as those created by other changes in the forest industry that affect the livelihood of forest workers.

3.8.c Given the new global economy and competition, economic change is inevitable on Vancouver Island. The Land Use Plan recognized such change by promoting a range of programs that focus on skills training for displaced workers, and skills training partnerships on Vancouver Island. These programs have since been incorporated into the activities of FRBC and extended to apply to a variety of communities and workers affected by economic, as well as land use changes affecting the forest industry across BC.

M121

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Land Use Designations

4.1 Introduction

The Vancouver Island Land Use Plan establishes different land use categories or regional zones, as shown on **Map 8**. The allocation of land to the different land use zones is shown in **Figure 2**.

Figure 2: Distribution of Land Use Designations

Land Use Zone	Area (HA)	Percent of Island
Protected	438,784	13
Special Management RMZ	268,138	8
Enhanced Forestry RMZ	808,222	24
General RMZ	1,027,994	31
Agriculture	96,527	3
Settlement	108,138	3
Private	601,208	18
Totals	3,349,011	100

RMZ: a resource management zone for purposes related to the Forest Practices Code.

Table 4 (Land Use Guide) provides an indication of the degree to which opportunities may exist for a given activity in a given zone. The Guide attempts to address future activities at a regional planning scale. It does not identify permitted or non-permitted uses at the site level. Use of the Guide, considered together with the strategic directions provided in section 3.0 and resource or activity specific management objectives and strategies, should provide direction for subsequent planning or decision-making with respect to any proposed activity. NOTE: The rating in **Table 4** is a generalized rating for the entire zone, and may vary when considering the resource values and characteristics of any land and coastal unit within the zone. All uses are subject to government policy and legal requirements respecting consultation with First Nations on rights and title.

This chapter presents a description of resource values, as well as management objectives and strategies for the individual Resource Management Zone Units. The prescriptions for the 22 Special Management Zone Units are presented first, followed by the 47 General Management and Enhanced Forestry Zone units.

The objectives in this Plan are intended to describe a desired future state with respect to a particular resource value or regime. The objectives are preceded by a more generalized goal or intent statement for each resource value or regime. Special Timber, Biodiversity and Visual objectives for SMZ, as well as timber harvesting objectives for EFZ units, are intended to be established as a "higher level plan" under the *Forest Practices Code of British Columbia Act*.

The strategies identified in this part of the Plan are defined as possible or desired actions or means for achieving resource objectives. They are offered as advice for consideration by decision-makers when making management determinations. Strategies are not legally binding, nor do they represent Ministry of Forests District Manager policy.

4.2 Protected Area Zone

4.2.1 Intent

The intent of the Protected Area Zone is to designate areas for the protection of viable representative examples of natural diversity on Vancouver Island, and to set aside unique and special natural, recreational and cultural heritage features of the Island in accordance with BC's Protected Area Strategy.

Protected Areas established by Cabinet decisions related to the Vancouver Island Land Use Plan are listed in **Table 5**.

Land Use Designations

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Table 4 (Land Use Guide) provides an indication of the degree to which opportunities may exist for a given activity in a given zone. The Guide attempts to address future activities at a regional planning scale. It does not identify permitted or non-permitted uses at the site level. Use of the Guide, considered together with the strategic directions provided in section 3.0 and resource or activity specific management objectives and strategies, should provide direction for subsequent planning or decision-making with respect to any proposed activity. NOTE: The rating in **Table 4** is a generalized rating for the entire zone, and may vary when considering the resource values and characteristics of any land and coastal unit within the zone. All uses are subject to government policy and legal requirements respecting consultation with First Nations on rights and title.

This chapter presents a description of resource values, as well as management objectives and strategies for the individual Resource Management Zone Units. The prescriptions for the 22 Special Management Zone Units are presented first, followed by the 47 General Management and Enhanced Forestry Zone units.

The objectives in this Plan are intended to describe a desired future state with respect to a particular resource value or regime. The objectives are preceded by a more generalized goal or intent statement for each resource value or regime. Special Timber, Biodiversity and Visual objectives for SMZ, as well as timber harvesting objectives for EFZ units, are intended to be established as a "higher level plan" under the *Forest Practices Code of British Columbia Act*.

The strategies identified in this part of the Plan are defined as possible or desired actions or means for achieving resource objectives. They are offered as advice for consideration by decision-makers when making management determinations. Strategies are not legally binding, nor do they represent Ministry of Forests District Manager policy.

4.2 Protected Area Zone

4.2.1 Intent

The intent of the Protected Area Zone is to designate areas for the protection of viable representative examples of natural diversity on Vancouver Island, and to set aside unique and special natural, recreational and cultural heritage features of the Island in accordance with BC's Protected Area Strategy.

Protected Areas established by Cabinet decisions related to the Vancouver Island Land Use Plan are listed in **Table 5**.

Table 4

Land Use/Activity	Upland PA	RMZ SMZ	RMZ GMZ	RMZ EFZ	Agricultural Lands	Coastal Waters PA	Coastal Waters SMZ	Coastal Waters GMZ
Food Production								
Agriculture	N	N	G/C	G/C	S	-	-	-
Aquaculture[1]	N	C	G	G	S	N	C	S/G
Timber Production	N	C	G	S	C	-	-	-
Outdoor Recreation								
Non Commercial	S/G	G	G	G	C	S	S	G
Tourism (refer to key)								
Low Intensity	C	S/C	G	C	C	S	C	G
Medium Intensity	N	S/C	G	N	C	N	S/C	G
High Intensity	N	N	G	N	C	N	N	G
Fish and Wildlife								
Fishing	N	G	G	G	C	G/N	S/G	G
Hunting	N	G	G	G	C	G/N	G/C	G
Trapping	N	G	G	G	C	-	-	-
Viewing[2]	S/C	C/G	G	G	G/C	S/C	S/G	G
Domestic Water Supply	N	G	G	G	C	-	-	-
Transportation/Utility Corridor	N	C	G	G/C	C	N	C	G
Residential	N	N	G	N	N	N	N	G
Commercial/Industrial	N	N/C	G	C	N/C	N	C	G
Institutional Uses	N	N/C	G	N	N/C	N/C	C	G

Key to Land Use Guide

S. Specific Opportunity - There is a strong preference for this activity within the LUD. Activities with this rating reflect the essential purpose of the LUD. This activity is subject to normal resource management and land use requirements; however, special policies may be effected to promote the activity within the LUD.

G. General Opportunity - There is a general acceptance of this activity within the zone, due to general compatibility with the intent of the designation. The activity is subject to normal referral procedures, conditions and requirements in effect for standard resource management purposes (e.g. legislation, guidelines, codes of practice, standard operating procedures).

C. Conditional Opportunity - The activity is acceptable within the zone, however special operational conditions may be imposed to ensure practices are consistent with maintaining the intent of the zone. Special conditions or guidelines may be applied where technically necessary to address site-specific considerations, as a result of established higher level plan direction, or as conditions of project approval and permitting.

N. No Opportunity - The activity is incompatible and inconsistent with the basic intent of the zone, and either excluded by statute (e.g. no mining in parks), or occurs only by special circumstance such as grandparented use. There are limited opportunities for compatibility of the activity within the zone.

Key to Intensity of Tourism Activity

Low - Backcountry/wilderness activity areas where the service infrastructure is rustic or non-existent. Structures must not be readily apparent, or intrude on the natural setting. Typical tourism facilities would be campsites, trails, backcountry huts, cookshacks, outhouses and other structures required to reduce visitor's impact on the environment.

Medium - Intermediate development intensity, generally modest-scale structures built to complement the natural setting. Structures must not dominate the setting. Typical tourism facilities would be backcountry lodges, remote resorts and camps.

High - Frontcountry (settlement areas) and areas of well-developed service infrastructure. Structures may dominate the setting. Typical tourism facilities would be hotels, motels, museums, theatres, and other 'roofed' attractions.

1 Land or lake-based aquaculture in land units, and marine based aquaculture in coastal units.
2 Viewing opportunities are restricted within some Ecological Reserves to protect easily impacted resources.

4.2.2 Protected Areas Management Regime

Objectives

To designate, plan and manage protected areas to ensure the maintenance of conservation, recreation, and cultural values for which they are established.

Strategies

- Park management direction statements and/or master plans will be developed for all new provincial parks created pursuant to the Land Use Plan.
- The protected areas system in the Plan Area will be developed to ensure a variety of recreational experiences and opportunities are created for the benefit of the public.
- Protected areas proposed for regional park purposes will be transferred to the appropriate regional district.
- Uses and activities within protected areas will be governed by the 1995 Cabinet-approved document "Compatibility of Selected Activities, Services and Use in Protected Areas".
- Existing commodity extraction tenures in new protected areas will be discontinued, under terms negotiated with the tenure holders.
- Existing tenures within new parks will be assessed in accordance with existing management conditions of the tenures, *Park Act* provisions, and the approved park management direction statement or management plan.
- New protected areas will continue to be accessible to First Nations for the exercise of aboriginal rights, subject to conservation, public health and safety requirements.

4.2.3 New Protected Areas

Table 5: New Protected Areas

Goal 1 Areas:	HA
Lanz-Cox Islands	5,514
Nahwitti-Shushartie	6,750
Addition to Cape Scott Provincial Park	
Marble River	1,512
God's Pocket	2,025
Quatsino	654
Lower Nimpkish River	200
Nimpkish Lake	3,950
Tashish-Kwois	10,829
Includes Tashish-Kwois Ecological Reserve	
Brooks Nasparti	22,851
Addition to Brooks Peninsula Provincial Park	
Lower Tsitika	3,744
Addition to Robson Bight Ecological Reserve	
Claud Elliott Lake	289
Davie River	259
Addition to Schoen Lake Provincial Park	
Woss Lake	6,634
Catala Island	851
Bligh Island	4,455
Rock Bay	525
White Ridge	1,343
McBride Creek	3,751
Upper Qualicum	48
Addition to Horne Lake Caves Provincial Park	
Nitinat Lake/Hitchie Creek	226
Cowichan River	750
Upper Carmanah	3,343
Addition to Carmanah Walbran Provincial Park	
Walbran	9,500
Addition to Carmanah Walbran Provincial Park	

Goal 2 Areas:	HA
The following locations include those located on Crown land or on private land that have since been acquired by the Province.	
Artlish Caves	254
Big Bunsby	658
Adjacent to Checleset Bay Ecological Reserve	
Bowser	116
Bright Angel Addition	6
Chemainus River:	43
Addition to Chemainus River Provincial Park	
Comox Lake Bluffs	47
Divers Lake	1034
Addition to Strathcona Provincial Park	
Dixie Cove	156
Gold-Muchalat	645
Hudson Rocks	49.5
Klanawa River	90
Lawn Point	584
Ladysmith Bog	141
Main Lakes Chain	3424
Misty Lake	55
Nitinat River	160
Nuchatlitz	2,105
Read Island	637
San Juan River Estuary	79
Santa - Boca	440
Somenos Garry Oaks	17
Stamp River, Money's Pool	280
Addition to Stamp River Provincial Park	
Surge Narrows	441
Weymer Creek	316
White River	68
Woodley Range	166

4.2.2 Protected Areas Management Regime

Objectives

To designate, plan and manage protected areas to ensure the maintenance of conservation, recreation, and cultural values for which they are established.

Strategies

- Park management direction statements and/or master plans will be developed for all new provincial parks created pursuant to the Land Use Plan.
- The protected areas system in the Plan Area will be developed to ensure a variety of recreational experiences and opportunities are created for the benefit of the public.
- Protected areas proposed for regional park purposes will be transferred to the appropriate regional district.
- Uses and activities within protected areas will be governed by the 1995 Cabinet-approved document "Compatibility of Selected Activities, Services and Use in Protected Areas".
- Existing commodity extraction tenures in new protected areas will be discontinued, under terms negotiated with the tenure holders.
- Existing tenures within new parks will be assessed in accordance with existing management conditions of the tenures, *Park Act* provisions, and the approved park management direction statement or management plan.
- New protected areas will continue to be accessible to First Nations for the exercise of aboriginal rights, subject to conservation, public health and safety requirements.

4.2.3 New Protected Areas

Table 5: New Protected Areas (all sizes approximate)

Goal 1 Areas:	HA
Lanz-Cox Islands	5,514
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Addition to Cape Scott Provincial Park	
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Quatsino	654
Lower Nimpkish River	200
Nimpkish Lake	3,950
Tashish-Kwois	10,829
Includes Tashish-Kwois Ecological Reserve	
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Woss Lake	6,634
Catala Island	851
Bligh Island	4,455
Rock Bay	525
White Ridge	1,343
McBride Creek	3,751
Upper Qualicum	48
Addition to Home Lake Caves Provincial Park	
Nitinat Lake/Hitchie Creek	226
Cowichan River	750
Upper Carmanah	3,343
Addition to Carmanah Walbran Provincial Park	
Walbran	9,500
Addition to Carmanah Walbran Provincial Park	

Goal 2 Areas:	HA
The following locations include those located on Crown land or on private land that have since been acquired by the Province.	
Artlish Caves	254
Big Bunsby	658
Adjacent to Checleset Bay Ecological Reserve	
Bowser	116
Bright Angel Addition	6
Chemainus River:	43
Addition to Chemainus River Provincial Park	
Comox Lake Bluffs	47
Divers Lake	1034
Addition to Strathcona Provincial Park	
Dixie Cove	156
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Misty Lake	55
Nitinat River	160
Nuchatlitz	2,105
Read Island	637
San Juan River Estuary	79
Santa - Boca	440
Somenos Garry Oaks	17
Stamp River, Money's Pool	280
Addition to Stamp River Provincial Park	
Surge Narrows	441
Weymer Creek	316
White River	68
Woodley Range	166

Table 5: New Protected Areas CONT (all sizes approximate)

Goal 2 Areas (Private Land Negotiations)	HA
The following areas are located partially or entirely on private lands. If negotiations to acquire these areas are unsuccessful, other lands of equivalent area will be pursued. Niagara Creek has been transferred to the Capital Regional District.	
Cowichan River Corridor Additions	531
Haley Lake	762
Addition to Haley Lake Ecological Reserve	
Mesachie Lake	14
Notch	7
Niagara Creek	522
Octopus Islands	251
Addition to Octopus Island Provincial Park	
Puntledge River Fossil Beds	61
Somass River Estuary	48
Waiatt Bay-Small Inlet	487
Crown portion now park	

Goal 2 Areas (Regional District Park Transfer)	
The following areas have been identified for transfer to Regional Districts. They are not included in the Vancouver Island PAS 13% target, as PAS does not recognize local government park land.	
Carrington Bay	217
Little Mountain	308
Morison Creek	134
Seal Bay	564

4.3 Resource Management Zones (RMZ)

The following sections present the management intent, regimes and individual zone units for each of the three resource management zones designated under the Plan:

- Special Management Zone (SMZ, 22 units),
- General Management Zone (GMZ, 25 units) and
- Enhanced Forestry Zone (EFZ, 22 units).

The 69 individual zone units in the three RMZ categories comprise the area under the Plan, which is subject to the provisions of the Forest Practices Code. The FPC also applies to Clayoquot Sound, but is largely superseded there by the Scientific Panel recommendations. The FPC provides the baseline of regulatory and forest stewardship requirements which apply across all three RMZ categories. The general provisions of the Code are broadly reflected in the general management regimes assigned to all RMZs.

In the case of the Special Management Zone units, special management regimes are defined for the key primary resource values found in the individual zone units, which may go beyond the general provisions of the Code. Some of these special management regimes, notably the special timber, special biodiversity and special visual management objectives, will be established as higher level plans under the Code to ensure forest operations on the ground are consistent with the zone intent.

Similarly, in the case of the Enhanced Forestry Zone units, enhanced management regimes have been defined which vary from the general provisions of the Code. The enhanced timber harvesting objective will be established in a higher level plan under the Code, to enable greater flexibility for harvest operations on the ground while maintaining the FPC's environmental stewardship provisions.

The diagram below shows conceptually the application of the management regimes to resource values in the three different RMZ categories.

Management regimes for aquaculture are included in the Plan. In all upland units, these are intended to apply to aquaculture applications and operations in freshwater bodies and to operations employing land-based aquaculture technologies, including commercial hatcheries. In marine areas, these apply to all coastal units. The "general" regime applies to potential aquaculture development in all upland unit areas zoned GMZ or EFZ, and in all coastal unit areas

	Resource Management Zone				
	Special Management		General Management	Enhanced Forestry	
Values Addressed	Identified Primary Values: wildlife, biodiversity, old growth forests, recreation, visual and tourism	Other Resources	All Resources	Non Timber Resources	Timber Resources
Management Regimes	Special Management Under VILUP and FPC Higher Level Plan designation	General Management under FPC and other legislation			Enhanced Management Under VILUP and FPC Higher Level Plan designation

Table 5: New Protected Areas cont.

Goal 2 Areas (Private Land Negotiations)	HA
The following areas are located partially or entirely on private lands. If negotiations to acquire these areas are unsuccessful, other lands of equivalent area will be pursued. Niagara Creek has been transferred to the Capital Regional District.	
Cowichan River Corridor Additions	531
Haley Lake	762
Addition to Haley Lake Ecological Reserve	
Mesachie Lake	14
Notch	7
Niagara Creek	522
Octopus Islands	251
Addition to Octopus Island Provincial Park	
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Somass River Estuary	48
Waiatt Bay-Small Inlet	487
Crown portion now park	
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Management Regimes	Special Management Under VILUP and FPC Higher Level Plan designation	General Management under FPC and other legislation			Enhanced Management Under VILUP and FPC Higher Level Plan designation

zoned GMZ. The "special" regime applies in both upland and coastal areas designated SMZ. Since these guidelines encompass all planning units, aquaculture is not included in **Tables 6-8** and in Appendix 3.

4.3.1 Special Management Zone RMZ

Intent

The intent of the Special Management Zone (SMZ) is to identify Crown land and coastal areas with regionally significant values or combinations of values requiring more comprehensive management objectives and strategies to minimize development impacts. SMZ units are not intended as future protected areas, and are available for a variety of extractive and non-extractive activities.

In SMZ units, management is to be based on the primary environmental, cultural and recreational resource values identified, and extractive and non-extractive resource use and activities are to be conducted in a manner compatible with the identified primary resource values.

At a minimum, all legislated requirements of the Forest Practices Code apply. Where necessary to maintain the primary SMZ values, specific resource management objectives may be identified which exceed normal Code requirements.

The additional long term reduction in timber supply resulting from practices in SMZ areas is not to exceed, in aggregate across all SMZ units, 10% over the impact associated with the normal Code stewardship provisions.

Resource management within SMZ units will be accompanied by active monitoring and evaluation, consistent with the principles and concepts of adaptive management.

Forested SMZ units are intended to become vanguard areas for implementing the principles of sustainable forest ecosystem management[3].

Non-forest development projects of a commercial or industrial nature which have potential to significantly impact SMZ values (not covered by the FPC) will be examined through an inter-agency referral process and sufficient opportunities for public input will be allowed.

Provincial agencies leading the review of a non-forest development proposal must be satisfied that neither the project nor the cumulative effect in association with existing nearby developments will result in a significant loss, decline or impact to the identified sensitive values of the affected SMZ unit. These agencies are responsible for ensuring that the proponent has taken reasonable measures to contact and inform the public, and to incorporate consideration of public views within their assessment. Agency disagreements in such circumstances will be brought to the Inter-Agency Management Committee for resolution.

The 22 SMZ units occupy 212,066 ha of land and coastal nearshore, representing 6.3% of the Plan Area. With the addition of SMZ units within Clayoquot Sound, 8% of Vancouver Island is included in this designation.

Special Management Regimes

Special management regimes are identified for key primary resource values found in individual SMZ units to ensure that those primary values are maintained. Some special management regimes require forest practices which are incremental to the general direction provided by the FPC. The objectives for those regimes are recommended for "higher level plan" declaration (Special Timber, Special Biodiversity and Special Visual objectives). Other special management regimes reinforce the application of certain provisions of the Code, without specifically adding to the legislation, or they prioritize certain management actions.

Management of resource values within SMZs, which are not specifically identified as primary values, will be in accordance with the general management regimes presented in section 4.3.2.

Based on the identified primary values, the management regimes in individual SMZ units have been sorted into primary and secondary objectives. This provides a better sense of overall management emphasis and intent, and assists resource managers in their decision making. Fish and watershed regimes, due to their particular importance on the coast, remain listed under primary objectives. Table 6 provides a summary of where these regimes apply.

3 The LIARC report states that, in British Columbia, sustainable forest ecosystem management means that yields of desired resources and uses must be commensurate with the larger goal of sustaining ecosystem conditions of diversity, long-term productivity and resilience

Table 6: Management Regimes for Individual SMZ Units

(BOLD DENOTES PRIMARY REGIMES)

	SMZ Unit	TIM	WAT	FISH	WL	BIO	VIS	REC	TOU	C/K	CULT HER	ACC
1	Goletas Channel	S	G	G	S	S	S	S	S	G	G	G
2	West Coast Nahwitti Lowlands	S	G	G	S	G	S	S	S	G	G	G
3	Brooks Bay	S	G	G	S	S/B	S	S	S	G	G	G
4	Koprino	S	G	G	S	G	G	G	G	G	G	G
5	South Brooks-Bunsby	S	CW/G	G	S	B	S	S	S	G	G	G
6	Woss-Zeballos	S	G	G	G	B/G	S	S	G	G	G	G
7	Johnstone Strait	S	G	G	S	G	S	S	S	G	G	G
8	Tsitika River	S	G	G	S	S	G	G	G	G	G	G
9	Tsitika-Woss	S	G	G	S	G	G	S	G	G	G	G
10	Pinder-Atluck	S	G	G	S	B	S	S	G	G	G	G
11	Schoen-Strathcona	S	G	G	S	S/G	S	G	G	G	G	G
12	Western Nootka Island	S	G	G	S	G	S	S	S	G	G	G
13	Nahmint	S	G	G	S	S	S	S	G	G	G	G
14	Barkley Sound	S	CW/G	G	S	B/G	S	S	S	G	G	G
15	Tofino Mudflats	n/a	n/a	G	S (WMA)	n/a	n/a	S	S	n/a	G	G
16	Saanich Inlet	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
17	Strathcona-Taylor	S	G	G	S	G	G	G	G	G	G	G
18	Alberni Canal	S	CW/G	G	S	B/G	S	S	S	G	G	G
19	Quadra Island	S	G	G	S	G	S	S/G	S	G	G	G
20	Upper Qualicum	S	G	G	S	G	G	S	S	G	G	G
21	Walbran Periphery	S	G	G	S	G	G	S	G	G	G	G
22	San Juan Ridge	S	G	G	G	B/G	S	S	S	G	G	G

TIM: Timber; BIO Biodiversity; C/K Cave Karst; WAT Water; VIS Visual; CULT.HER Cultural Heritage; FISH Fish; REC Recreation; ACC Access; WL Wildlife; TOU Tourism; Regimes: S - Special; G - General; B - Basic; H - Higher; CW - Community Water

Special Timber Resource Management[4] Regime

Overall Goal/Intent: To manage forests in Special Management Zones in keeping with the primary resource values identified for each SMZ[5].

Objectives

(1) To sustain forest ecosystem structure and function in SMZs, by:

a) concentrating, within SMZs, the retention or recruitment of old growth forests required to meet landscape level biodiversity objectives[6]

b) creating and/or maintaining stand structures and forest attributes associated with mature[7] and old[8] forests, subject to the following:

Strategies

The following strategies are offered for consideration, where suitable:

- forest rotation periods should be applied to maintain the primary resource values of each SMZ, and are generally expected to exceed the age of culmination of mean annual increment (CMAI);
- apply silvicultural measures[12] suited to create structures and attributes of mature and old forests, as well as high value, large diameter logs;

Table 6: Management Regimes for Individual SMZ Units

(**BOLD** denotes primary regimes)

	SMZ Unit	TIM	WAT	FISH	WL	BIO	VIS	REC	TOU	C/K	CULT HER	ACC
1	Goletas Channel	S	**G**	**G**	**S**	**S**	**S**	**S**	**S**	G	G	G
2	West Coast Nahwitti Lowlands	S	**G**	**G**	**S**	G	**S**	**S**	**S**	G	**G**	G
3	Brooks Bay	S	**G**	**G**	**S**	S/B	**S**	**S**	**S**	G	G	G
4	Koprino	S	**G**	**G**	**S**	**G**	G	G	G	G	G	G
5	South Brooks-Bunsby	S	**CW/G**	**G**	**S**	B	**S**	**S**	**S**	G	**G**	G
6	Woss-Zeballos	S	**G**	**G**	G	**B/G**	**S**	**S**	G	G	G	G
7	Johnstone Strait	S	**G**	**G**	**S**	**G**	**S**	**S**	**S**	G	G	G
8	Tsitika River	S	**G**	**G**	**S**	**S**	G	G	G	G	G	G
9	Tsitika-Woss	S	**G**	**G**	**S**	**G**	G	**S**	G	G	G	G
10	Pinder-Atluck	S	**G**	**G**	**S**	B	**S**	**S**	G	G	G	G
11	Schoen-Strathcona	S	**G**	**G**	**S**	**S/G**	**S**	G	G	G	G	G
12	Western Nootka Island	S	**G**	**G**	**S**	G	**S**	**S**	**S**	G	**G**	G
13	Nahmint	S	**G**	**G**	**S**	**S**	**S**	**S**	G	G	G	G
14	Barkley Sound	S	**CW/G**	**G**	**S**	B/G	**S**	**S**	**S**	G	**G**	G
15	Tofino Mudflats	n/a	n/a	**G**	**S** (WMA)	n/a	n/a	S	S	n/a	G	G
16	Saanich Inlet	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
17	Strathcona-Taylor	S	**G**	**G**	**S**	**G**	G	G	G	G	G	G
18	Alberni Canal	S	**CW/G**	**G**	**S**	B/G	**S**	**S**	**S**	G	G	G
19	Quadra Island	S	**G**	**G**	**S**	**G**	**S**	**S/G**	**S**	G	G	G
20	Upper Qualicum	S	**G**	**G**	**S**	**G**	G	**S**	**S**	G	G	G
21	Walbran Periphery	S	**G**	**G**	**S**	**G**	G	**S**	G	G	G	G
22	San Juan Ridge	S	**G**	**G**	G	B/G	**S**	**S**	**S**	G	G	G

TIM: Timber; **BIO** Biodiversity; **C/K** Cave Karst; **WAT** Water; **VIS** Visual; **CULT.HER** Cultural Heritage; **FISH** Fish; **REC** Recreation; **ACC** Access; **WL** Wildlife; **TOU** Tourism;
Regimes: **S** - Special; **G** - General; **B** - Basic; **H** - Higher; **CW** - Community Water

Special Timber Resource Management[4] Regime

Overall Goal/Intent: To manage forests in Special Management Zones in keeping with the primary resource values identified for each SMZ[5].

Objectives

(1) To sustain forest ecosystem structure and function in SMZs, by:

a) concentrating, within SMZs, the retention or recruitment of old growth forests required to meet landscape level biodiversity objectives[6]

b) creating and/or maintaining stand structures and forest attributes associated with mature[7] and old[8] forests, subject to the following:

Strategies

The following strategies are offered for consideration, where suitable:

- forest rotation periods should be applied to maintain the primary resource values of each SMZ, and are generally expected to exceed the age of culmination of mean annual increment (CMAI);
- apply silvicultural measures[12] suited to create structures and attributes of mature and old forests, as well as high value, large diameter logs;

i. the target for mature seral forest should range between one quarter to one third of the forested area of each SMZ[9]; and

ii. in SMZs where the mature target is not presently achievable, the target amount of mature forest must be in place within 50 years;

c) retaining, within cutblocks, structural forest attributes and elements with important biodiversity functions[10]; and

d) applying a variety of silvicultural systems, patch sizes and patch shapes across the zone, subject to a maximum cutblock size of 5 ha if clearcut, clearcut with reserves or seed tree silvicultural systems are applied, and 40 ha if shelterwood, selection or retention silvicultural systems are applied.

(2) Despite subsection (d) above, cutblocks larger than 5 or 40 ha, as the case may be, may be approved if harvesting is being carried out to recover timber that was damaged by fire, insects, wind or other similar events and wherever possible, the cutblock incorporates structural characteristics of natural disturbances.

(3) Pursuant to section 2(1) of the Operational Planning Regulation[11], the approval of both the district manager, Ministry of Forests and the designated environment official, Ministry of Environment, Lands and Parks is required for all forest development plans or parts of forest development plans within SMZs.

- the amount of old growth management area allocated to an individual SMZ should correspond to:
  a) the primary values of the SMZ (e.g. higher amounts for those SMZs which have primary biodiversity, old growth and wildlife values, lesser for those which have primary visual/recreation values) and
  b) to the biodiversity and wildlife objectives of the general management or enhanced forestry zone, as the case may be, covering the remainder of the landscape unit.
- maintain mature and/or old seral forest connectivity;
- apply innovative silvicultural systems to maintain the primary resource values identified for the SMZ;
- when applying retention silvicultural systems, the amount of retention should generally range between 10 and 20 percent of the gross cutblock area;
- patch size should be in keeping with the specific primary resource values identified for the SMZ;

Refer also to the additional strategies offered for individual SMZ units (chapter 4.3.1.3 of the Summary Plan).

4 this objective applies in all Special Management Zones, and is augmented by the pertinent 'Special' non-timber objectives assigned in individual SMZs (e.g. 'Special Visual', Special Wildlife' etc.);

5 refer to chapter 4.3.1.3 for list of primary resource values in each individual SMZ unit;

6 The intent is for SMZs, which comprise a portion of a (draft) landscape unit, to become focal areas for the placement of old growth management areas (OGMA) required at the landscape unit level.

7 The mature seral stage is defined as: generally, trees 80 to 120 years old or older, depending on species and site conditions. The structure of mature seral forests generally includes canopies that vary vertically or horizontally, or both. The age and structure of the mature seral stage will vary significantly by forest type and from one biogeoclimatic zone to another.

8 The old seral forest is defined as: generally greater than 250 years old, containing live and dead (downed and standing) trees of various sizes, including large diameter trees, and of various tree species, including broad-leaved trees; the structure of old seral forest varies significantly by forest type and from one biogeoclimatic zone to another.

9 Mature seral targets will be established through landscape unit planning.

10 This includes, but is not limited to: snags, wildlife trees, downed logs; refer also to Special Biodiversity Conservation Management.

11 B.C. Reg. 107/98 O.C. 426/98- Effective: June 15,1998

12 suitable silvicultural measures include, but are not limited to: pruning, early and periodic stand density control, partial cutting silvicultural systems;

Special Biodiversity Conservation Management[13] Regime

Overall Goal/Intent: To maintain natural elements and attributes of biodiversity with emphasis on rare and underrepresented ecosystems.

Objectives

(1) Maintain late-successional habitat elements and attributes of biodiversity[14] in forested ecosystems with emphasis on regionally rare and underrepresented ecosystems, by retaining old seral forest at the site series/surrogate level of representation[15].

(2) Late-successional habitat elements and attributes of biodiversity should be retained in patches of variable size.

Strategies

The following strategies are offered for consideration in those Special Management Zones or portions thereof where special biodiversity conservation objectives apply:

- emphasis for retention of old seral forest should be on rare site series, as well as wildlife habitat (see pertinent wildlife objectives and strategies);

It is recognized that site series information is not available in many SMZs; where site series information is lacking, a combination of forest cover and site productivity or site index information should be used to determine representativeness.

Refer also to the strategies offered in the individual zone descriptions.

13 This regime applies to those SMZs that are part of a landscape unit with higher biodiversity emphasis (i.e. SMZ 1, 3, 8, 9, 11 and 13). In addition to the guidance provided under the Special Timber Management regime (see above), this regime places an emphasis on the protection of old growth forests associated with rare and underrepresented site series. While this will be achieved primarily through landscape unit planning, it is important for operational planning to maintain the options to achieve this objective.

14 this includes, but is not limited to: large diameter (>60 cm) live, decaying and dead standing trees (providing nest and cavity sites); downed wood, including large diameter pieces (50 to 150 cm); deciduous broad-leaved trees, both in riparian and upland areas. These elements should be retained in patches of variable size (e.g. wildlife tree patches, variable retention patches, old growth management areas), and in accordance with the retention levels required by legislation and policy.

15 The level of representation of old seral forest will be applied through landscape unit planning.

Special Wildlife Management Regime

Overall Goal/Intent: To identify and conserve as a priority the habitat for wildlife species where identified as a primary value in SMZ areas.

Objectives

To provide suitable habitat for wildlife species identified as primary values in SMZ.

Strategies

The following strategies are offered for consideration, where suitable:

- identify, establish and make known ungulate winter ranges (UWR) and establish management objectives for UWR in SMZ, in accordance with pertinent legislation and policy;
- manage and conserve species at risk in accordance with the Forest Practices Code and Cabinet-approved strategies;
- apply stand and landscape level measures in accordance with the Code, Cabinet-approved wildlife strategies and applicable biodiversity objectives, focusing on habitat elements and interior conditions associated with old-growth forests, as well as habitat connectivity;
- develop habitat management and conservation strategies for species identified as primary SMZ values;
- prioritize the collection of wildlife inventory information in SMZ where wildlife values are identified as primary.

Refer also to the strategies offered in the individual zone descriptions.

Special Visual Resource Management Regime

Overall Goal/Intent: To ensure that the quality and integrity of visual resources are maintained or restored where identified as primary value in SMZ.

Objectives

(1) Maintain the visual quality of known scenic areas in accordance with the visual landscape inventory recommendations, until visual quality objectives for the areas have been established by the district manager.

(2) Objective (1) applies to scenic areas within those SMZs where visual resources have been identified as primary resource values, as shown on Map 10.

Strategies

The following strategies are offered for consideration, where suitable:

- The district manager should identify and/or amend scenic areas in consultation with the Ministry of Small Business, Tourism and Culture, and make scenic areas known in accordance with the FPC;
- The district manager should establish under the Code and in consultation with the MSBTC, visual quality objectives for known scenic areas in SMZs, generally ranging from partial retention to preservation, based on landscape sensitivity and visual landscape inventory recommendations;
- The district manager should instruct licensees to contact tenured tourism facility operators when preparing forest development plans in the vicinity of established tourism facilities;
- Licensees should apply integrated visual landscape design principles and techniques when planning and implementing development activities;
- Licensees shall conduct visual impact assessments (VIA) prior to development in areas with established visual quality objectives; when conducting a VIA in vicinity of established tourism facilities, the facility operator should be consulted;
- Where visual and/or recreation resources are identified as primary SMZ values, and for a transitional period of 2 years following the approval of this plan, the district manager should refer forest development plans to the MSBTC prior to making a determination; at the end of the transition period, the district manager and MSBTC should evaluate if referrals to MSBTC continue to be required;
- Licensees should consider the use of alternative silvicultural systems to achieve visual quality objectives (VQOs) where site, stand, ecological and economic conditions are appropriate (refer to Special Timber Resource Management objectives and strategies);
- Licensees should consider forest practices which will minimize time to achieve visually effective green-up;
- Licensees should consider restoring and/or enhancing the scenic values of areas through alteration of existing cutblock boundaries;

Refer also to the strategies offered in the individual zone descriptions.

Special Recreation Resource Management Regime

Overall Goal/Intent: To maintain the integrity of the significant recreation resources identified as primary values in SMZ.

Objectives

To maintain, as a priority, a wide spectrum of recreation resource features and opportunities occurring in the zone, including scenic landscapes, semi-primitive recreation opportunity settings, cultural and heritage landmarks and developed recreation facilities, with particular emphasis on the areas included in the recreation resource description for the zone.

Strategies

The following strategies are offered for consideration, where suitable:

- maintain and/or enhance a complete and updated inventory of recreation features, opportunities (recreation opportunity spectrum) and activities;
- identify recreation features and make them known in accordance with the FPC;
- manage known recreation features and opportunities in accordance with the significance and sensitivity of the recreation values in the zone.

Special Tourism Resource Management Regime

Overall Goal/Intent: To maintain the quality of areas within SMZ which are of high importance to tourism, including associated employment and economic benefits.

Objectives

To maintain, as a priority, the quality of resource values of high importance to tourism where identified as primary values in SMZ.

Strategies

The following strategies are offered for consideration, where suitable:

- in consultation with the Ministry of Small Business, Tourism and Culture, identify resource values of high importance to tourism in those SMZ where those values are listed as primary; these values include: existing and potential facility and use settings, shorelines, scenic areas, recreation features, and travel corridors/access routes;
- manage access in a manner that maintains the tourism and amenity resources where identified as primary values in the zone;
- manage recreation and visual resources in accordance with the special recreation and visual resource management objectives of the zone.

Special Aquaculture Resource Management Regime

Overall Goal/Intent: To accommodate sustainable aquaculture development while maintaining the designated primary resource values of the SMZ area.

Objectives

To maintain resource values of importance to aquaculture, especially where complementary to the primary resource values.

To conduct aquaculture development activities in a manner which is designed to maintain the primary resource values where they occur in this zone.

Strategies

The following strategies are offered for consideration, where suitable:

- as per General Aquaculture Management;

Additional siting criteria and/or operational codes of practice will be developed and implemented to address noise and visual quality where visual, outdoor recreation or tourism values are primary.

Individual Special Management Zone Units

This section presents a description of resource values, as well as management objectives and strategies for the 22 individual Special Management Zone units.

The objectives and strategies assigned to each resource value in each SMZ unit are presented in abbreviated form, i.e. as the pertinent regime titles (e.g. special recreation management), without repeating the detailed wording of each objective and strategy presented in the previous section. For complete wording of the general management regimes, refer to section 4.3.2. Where applicable, and based on available regional scale information, additional management strategies are provided for particular resource values, to clarify management advice in a given unit.

Total area figures given for the units are based on regional scale data, and may include parcels of private land. The objectives and strategies presented in this report, however, apply only to Crown land and private forest land within Tree Farm Licence areas.

SMZ-1: Goletas Channel

Location: zone extending along coastline northwest of Port Hardy; includes Balaklava Island; adjacent to RMZ 2 (Shushartie)

Total Area: approximately 11,000 ha

Primary Values (see LIARC report)

1. Coastal visual and recreational opportunities
2. Fish habitats (lower Shushartie, Songhees rivers)
3. Wildlife habitats (deer/elk WR: lower Shushartie R.; waterfowl: coastal)
4. Shushartie River recreational access route

Overall Management Guidance: Coastline and Shushartie River exhibit multiple recreational and biological values and should be primary targets for special recreation/visual/tourism, as well as fish and wildlife management; this zone should become a focal area for old seral forest retention in accordance with the higher level of biodiversity conservation

Primary Objectives

Visual Resources:
Description: visually sensitive along coastline
Objective: Special Visual Resource Management

Recreation Resources:
Description: coastal opportunities, proposed North Coast Trail; Shushartie access route from coast to Georgie Lake, recreation values at Shushartie Lake; diving (Browning Passage)
Objective: Special Recreation Resource Management

Tourism Resources:
Description: coastal, high lodge/resort potential throughout
Objectives: Special Tourism Management

Wildlife:
Description: deer/elk winter range, waterfowl habitat, eagle nests; underwater flora and fauna
Objective: Special Wildlife Management

Fish:
Description: high anadromous fisheries in Shushartie and Songhees systems
Objective: General Fish Management

Biodiversity:
Description: this zone is part of the Shushartie draft landscape unit, which also comprises the RMZ-2 (Shushartie), as well as portions of protected area; the main ecosystem type is CWHvh1, some CWHvm1 (eastern portion of zone); high old growth values
Objective: Special Biodiversity Conservation Management
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[16] of the landscape unit, such retention should be concentrated[17] within the SMZ-portion of the landscape unit, with emphasis in vm1, and in (expanded) riparian habitats, particularly Shushartie riparian system

Water:
Description: high watershed integrity
Objective: General Watershed Management

16 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
17 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

Secondary Objectives

Timber:

Description: generally lower productivity, all mature
Objective: Special Timber Resource Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Cave/Karst:

Objective: General Cave/Karst Management

Access:

Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:

Description: some moderate potential for finfish culture and existing operations, shellfish culture potential unknown.

SMZ-2: West Coast Nahwitti Lowlands

Location: zone extending along coastline south-east of Cape Scott Park; encompassing Raft Cove protected area; zone is adjacent to RMZ 4 (San Josef - Koprino)

Total Area: approximately 15,100 ha

Primary Values (see LIARC report)

1. Scenic values visible from marine zone and access routes
2. Cultural/ heritage values
3. Coastal fish and wildlife habitats and populations (entire coast, plus riparian in Macjack R. and Ronning Cr., Topknot and Leeson Lakes)
4. Coastal recreation values and opportunities

Overall Management Guidance: main focus should be on special management for significant scenic and recreational values which are concentrated along narrow coastal strip; additional consideration should be on maintenance of the high riparian fish and coastal wildlife values

Primary Objectives

Visual Resources:

Description: highly visually sensitive viewsheds, confined to strip along coast; areas further upland within the SMZ are less visually sensitive
Objective: Special Visual Resource Management in areas visible from coast and along access routes
Strategies: manage viewsheds visible from park areas as scenic areas

Recreation Resources:

Description: coastal recreation: beaches, trails, kayaking, whale watching in strip along coast; areas further upland within the SMZ are less significant for recreation
Objective: Special Recreation Resource Management with emphasis along coast

Tourism Resources:

Description: high potential in coastal influence area; less significant values in lower Ronning and Macjack Creek areas
Objective: Special Tourism Management with emphasis on coastal influence area

Wildlife:

Description: coastal habitats: bald eagle, sea otters, amphibians; lower values for upland species
Objective: Special Wildlife Management
Strategies: need for developing habitat conservation measures for coastal species

Fish:

Description: known anadromous values in Macjack, Kwatleo systems and lower reaches of other creeks
Objective: General Fish Management

Water:

Description: high watershed integrity
Objective: General Watershed Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Secondary Objectives

Biodiversity:

Description: this zone is encompassed by the San Josef and Koprino draft landscape units, which also encompass RMZ-4, as well as Cape Scott and Raft Cove parks; CWHvh1 is the dominant ecosystem type, with some CWHvm1 (eastern portion of zone)
Objective: General Biodiversity Conservation Management
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[18] of the landscape units, such retention should be concentrated[19] within the SMZ-portion of the landscape units, with focus on (expanded) riparian habitats, as well as potential marbled murrelet habitat

Timber:
Description: moderate productivity, high proportion of mature timber
Objective: Special Timber Resource Management
Strategies: due to high winds and forest health considerations, preference should be given to retention silvicultural systems, rather than selection and shelterwood systems; reserve trees/groups should be selected for windfirmness, amongst other criteria

Cave/Karst:
Objective: General Cave/Karst Management

Access:
Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:
Description: some moderate potential for finfish culture and shellfish culture.

SMZ-3: Brooks Bay

Location: extending along the south side of Quatsino Channel to Klaskino Inlet

Total Area: approximately 10,200 ha

Primary Values (see LIARC report)

1. Coastal visual quality and associated recreation opportunities
2. Anadromous fish values and estuary fish rearing habitat
3. Marine endangered /threatened species and habitat

Overall Management Guidance: main focus should be to maintain and/or restore the high scenic/tourism/recreational values, as well as coastal, riparian and upland habitat values

Primary Objectives

Visual Resources:
Description: almost entire zone is highly visually sensitive
Objective: Special Visual Resource Management
Strategies: maintain viewsheds visible from park and water; restore visual quality where it has been impacted (e.g. Red Stripe Mountain, Side Bay, Klaskino Inlet)

Recreation Resources:
Description: features and opportunities associated with coastline; prime kayaking area; upland recreation potential in lower Klaskish and East Creek areas
Objective: Special Recreation Resource Management

Tourism Resources:
Description: coastal hiking, kayaking and lodge/resort potential
Objective: Special Tourism Management with emphasis on above areas

Wildlife:
Description: sea otter habitat between Restless Bight and Cliffe Point; high value estuary habitats in Harvey Cove and Side Bay; ungulate winter ranges; marbled murrelet detections in Klaskish/East Creek;
Objective: Special Wildlife Management for upland habitats
Strategies: develop habitat management strategies for coastal species

Fish:
Description: known anadromous fisheries in LeMare, Klaskish and East Creek systems (esp. estuaries), as well as lower reaches of smaller coastal streams; particularly high salmon values in East Creek and Klaskish
Objective: General Fish Management

Water:
Description: some extensively harvested areas
Objective: General Watershed Management
Strategies: deactivation of roads; rehabilitation of disturbed areas

Secondary Objectives

Biodiversity:
Description: this zone is part of the Mahatta and Klaskish draft landscape units, which also encompass portions of RMZ 8 and 9; high values associated with marine and riparian habitats; dispersed ungulate values
Objective: Special Biodiversity Conservation Management in parts of the zone situated within the Klaskish draft LU; Basic Biodiversity Conservation Management in remaining portions of the zone (part of Mahatta draft LU)
Strategies: to the extent that old seral forest retention will be required within the contributing land base

18 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
19 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

portions[20] of the landscape units, such retention should be concentrated[21] within the SMZ-portion of the landscape units and where necessary to conserve marbled murrelet habitat

Timber:

Description: moderate to high productivity, mix of mature and second growth timber

Objective: Special Timber Resource Management

Strategies: due to high winds and forest health considerations, preference should be given to retention silvicultural systems, rather than selection and shelterwood systems; reserve trees/groups should be selected for windfirmness, amongst other criteria

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Cave/Karst:

Objective: General Cave/Karst Management

Access:

Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:

Description: some moderate potential for finfish culture, shellfish culture potential unknown

SMZ-4: Koprino

Location: situated between Jules Bay and Koprino Harbour, connecting to SMZ 2 in the south-east

Total Area: approximately 6,100 ha

Primary Values (see LIARC report)

1. Old growth biodiversity and connectivity functions
2. Upland wildlife habitat

Overall Management Guidance: this SMZ should become a focal area (within the landscape unit) for the retention of old forest and associated wildlife habitat, as well as for mature and old forest connectivity

Primary Objectives

Wildlife:

Description: deer and elk winter range; good year-round capability for deer, elk, wolves, bears, cougars, grouse, goshawk and amphibians; waterfowl wintering areas in Koprino Harbour

Objective: Special Wildlife Management;

Fish:

Description: known anadromous fisheries in Hathaway Creek and Koprino River

Objective: General Fish Management

Biodiversity:

Description: this zone is part of the San Josef draft landscape unit which also comprises portions of RMZ-4; mostly CWHvm1; high proportion of old forests

Objective: General Biodiversity Conservation Management

Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[22] of the landscape unit, such retention should be highly concentrated[23] within the SMZ-portion of the landscape unit; maintain old forest connectivity within the SMZ

Water:

Description: some sensitive terrain, low equivalent clearcut area

Objective: General Watershed Management

Secondary Objectives

Timber:

Description: high productivity, mostly mature timber

Objective: Special Timber Resource Management

Visual Resources:

Description: mostly not visually sensitive, except in Jules Bay area

Objective: General Visual Resource Management with emphasis in Jules Bay area

Recreation Resources:

Description: secondary, except in Koprino Harbour area

20 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

21 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

22 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

23 'highly concentrated': the intent is to retain old seral forest required for the LU to a much greater degree within the SMZ, and to a much lesser degree within the RMZ portion of the LU

Objective: General Recreation Resource Management

Tourism Resources:

Description: associated with Jules Bay and Koprino Harbour

Objectives: General Tourism Management with emphasis in above areas

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Cave/Karst :

Objective: General Cave/Karst Management

Access:

Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:

Description: some moderate potential for finfish culture and good shellfish culture potential in Koprino Harbour

SMZ-5: South Brooks-Bunsby

Location: extending from Brooks-Nasparti protected area southeast along coast to Kyoquot

Total Area: approximately 6,200 ha

Primary Values (see LIARC report)

1 Coastal recreation values and opportunities
2 Marine species populations and habitat (sea otter, eagles)
3 Archaeological values

Overall Management Guidance: main focus should be on maintenance/recovery of scenic, recreation and tourism values, as well as cultural heritage values; maintenance of sea otter and bald eagle habitat

Primary Objectives

Visual Resources:

Description: highly significant scenic values along coastline

Objective: Special Visual Resource Management

Strategies: emphasis should be on visual restoration of impacted areas (Mt. Paxton, St. Paul's Dome)

Recreation Resources:

Description: significant values associated with land/water interface: marine fishing, kayaking, scuba-diving and beachcombing, particularly Spring Islands

Objective: Special Recreation Resource Management

Tourism Resources:

Description: high values and capability associated with coastline

Objective: Special Tourism Management

Fish:

Description: known anadromous fisheries in Clanninick Creek, high values in Malksope and Ououkinsh River

Objective: General Fish Management

Wildlife:

Description: sea otter habitat, bald eagles, and waterfowl wintering areas in estuaries of Clanninick Creek, Malksope and Ououkinsh River; lower upland wildlife values

Objective: Special Wildlife Management with emphasis on coastal species

Strategies: develop habitat management strategies for coastal species

Water:

Description: some unstable terrain, esp. along Malksope Inlet; some drainages with high equivalent clearcut area

Objective: General Watershed Management

Community Water

Description: Andrews Creek area is designated community watershed

Objective: Community Watershed Management

Cultural Heritage Resources:

Description: known archaeological values

Objective: General Cultural Heritage Resource Management

Secondary Objectives

Timber:

Description: lower to moderate productivity, high proportion of mature timber, except between Mt. Paxton and St. Paul's Dome

Objective: Special Timber Resource Management

Biodiversity:

Description: this zone is part of the Kashutl draft landscape unit, which also encompasses RMZ 14 and portions of Brooks-Nasparti protected area; mostly CWHvh1; marbled murrelet capability

Objective: Basic Biodiversity Conservation Management

Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[24] of the landscape units, such retention should be concentrated[25] within the SMZ-portion of the landscape units and where necessary to conserve marbled murrelet habitat

Cave/Karst:
Objective: General Cave/Karst Management

Access:
Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for finfish culture, shellfish culture potential unknown

SMZ-6: Woss-Zeballos

Location: encompasses Clint Creek, Zeballos and Kaipit Lakes

Total Area: approximately 8,700 ha

Primary Values (see LIARC report)

1 Old growth biodiversity
2 Visual qualities associated with access corridors and recreation sites
3 Recreation values/opportunities associated with lakes

Overall Management Guidance: this SMZ should become a focal area for old growth biodiversity conservation; focus should also be on maintenance of recreation opportunities associated with lakes and alpine/subalpine, and maintenance of scenic values associated with recreation sites and access corridors

Primary Objectives

Visual Resources:
Description: not inventoried as visually sensitive
Objective: Special Visual Resource Management with emphasis around lakes and recreation sites, and along access corridors

Recreation Resources:
Description: associated with lakes, hiking/climbing in subalpine and alpine environments
Objective: Special Recreation Resource Management with emphasis on above areas

Fish:
Description: values associated with lakes; high steelhead values in the Zeballos
Objective: General Fish Management

Biodiversity:
Description: this zone is part of the Zeballos and Upper Nimpkish draft landscape units, which also comprise all or portions of RMZ 13 and 16, as well as protected area portions; mostly CWHvm1 and vm2, as well as MH; almost entirely mature/old seral forest; regional connectivity function
Objective: Basic Biodiversity Conservation Management in parts of the zone situated in the Zeballos draft LU, General Biodiversity Conservation Management in parts of the zone situated in the Upper Nimpkish draft LU
Strategy: to the extent that old seral forest retention will be required within the contributing land base portions[26] of the landscape units, such retention should be highly concentrated[27] within the SMZ-portion of the landscape units

Water:
Description: some unstable terrain, low equivalent clearcut area
Objective: General Watershed Management

Secondary Objectives

Timber:
Description: high productivity in lower elevations, mostly mature timber
Objective: Special Timber Resource Management

Wildlife:
Description: moderate values
Objective: General Wildlife Management

Tourism Resources:
Description: backcountry and lodge/resort potential
Objectives: General Tourism Management

24 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
25 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.
26 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
27 'concentrated': the intent is to retain old seral forest required for the LU to a much greater degree within the SMZ, and to a much lesser degree within the RMZ portion of the LU

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management
Cave/Karst:
Objective: General Cave/Karst Management
Access:
Objective: General Access Management

SMZ-7: Johnstone Strait

Location: extending along the mountain slopes facing Johnstone Strait south-east of Port McNeill, up to Lower Tsitika protected area

Total Area: approximately 3,100 ha

Primary Values (see LIARC report)

1 Scenic values visible from marine zone
2 Old growth biodiversity values
3 Shoreline recreation opportunities
4 Coastal wildlife habitats

Overall Management Guidance: main focus should be on maintenance of recreational opportunities along coast, including coastal viewsheds, as well as maintenance of marine habitats, and old growth biodiversity values

Primary Objectives

Visual Resources:
Description: highly sensitive viewshed along coast, inside passage
Objective: Special Visual Resource Management
Recreation Resources:
Description: coastal whale watching, kayaking, boating, fishing
Objective: Special Recreation Resource Management with emphasis along coastline
Tourism Resources:
Description: coastal, lodge/resort potential
Objective: Special Tourism Management
Fish:
Description: moderate fish values associated with lower reaches of streams
Objective: General Fish Management
Wildlife:
Description: coastal habitat values; moderate upland values
Objective: Special Wildlife Management with emphasis on coastal species
Strategies: develop habitat management strategies for coastal species
Biodiversity:
Description: this zone is part of the Bonanza draft landscape unit, which also comprises RMZ-11; high proportion of old seral forest, mostly CWHvm1
Objective: General Biodiversity Conservation Management
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[28] of the landscape unit, such retention should be concentrated[29] within the SMZ-portion of the landscape unit
Water:
Description: generally lower terrain hazard, low equivalent clearcut area
Objective: General Watershed Management

Secondary Objectives

Timber:
Description: moderate to high productivity, mostly mature timber
Objective: Special Timber Resource Management ;
Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management
Cave/Karst:
Objective: General Cave/Karst Management
Access:
Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for finfish culture, shellfish culture potential unknown.

28 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
29 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

SMZ-8: Tsitika River

Location: extending along middle reaches of Tsitika River

Total Area: approximately 5,200 ha

Primary Values (see LIARC report)

1 Old growth and connectivity functions
2 Fish and wildlife habitats and populations, associated with riparian zone

Overall Management Guidance: primary focus should be on maintenance of high biodiversity values associated with old growth forests and riparian habitats, while maintaining opportunities for special timber management

Primary Objectives

Wildlife:
Description: very high values, particularly associated with the riparian corridor; pockets of deer and elk winter range throughout
Objective: Special Wildlife Management

Fish:
Description: high anadromous values; small steelhead run into Fickle Lake
Objective: General Fish Management

Biodiversity:
Description: this zone is part of the Tsitika draft landscape unit, which also comprises RMZ 26, as well as protected areas; mostly CWHvm1; high proportion of old seral forests; regional connectivity function
Objective: Special Biodiversity Conservation Management
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[30] of the landscape unit, such retention should be concentrated[31] within the SMZ-portion of the landscape unit

Water:
Description: some unstable terrain, low equivalent clearcut area
Objective: General Watershed Management

Secondary Objectives

Timber:
Description: very high productivity, almost entirely mature timber
Objective: Special Timber Resource Management

Visual Resources:
Description: not inventoried as visually sensitive
Objective: General Visual Resource Management
Strategies: maintain viewsheds visible from protected areas

Recreation Resources:
Description: associated with river; recreational fishing corridor along Tsitika riparian system
Objective: General Recreation Resource Management

Tourism Resources:
Description: lower potential
Objective: General Tourism Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Cave/Karst:
Objective: General Cave/Karst Management

Access:
Objective: General Access Management

SMZ-9: Tsitika-Woss

Location: extending from the Tsitika River to the north, to the Nimpkish River valley, and from there to Woss Lake to the south, and Davie River valley to the east.

Total Area: approximately 15,300 ha

Primary Values (see LIARC report)

1 Biodiversity (restoration) and connectivity functions
2 Recreation values and opportunities
3 Fish and wildlife habitats and populations

Overall Management Guidance: primary focus should be on maintenance and/or restoration of biodiversity attributes associated with old growth forests and riparian habitats, with particular attention to CWHxm2; this should be accomplished through incorporation of wildlife habitat and riparian zones

30 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
31 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

into old growth management area design at landscape level of planning

Primary Objectives

Wildlife:
Description: very high deer/elk winter range values
Objective: Special Wildlife Management

Fish:
Description: high anadromous values in Nimpkish and Davie systems; high anadromous and non-anadromous values in Claude Elliot Creek and Lake
Objective: General Fish Management
Strategies: active recovery plan for riparian attributes (refer to biodiversity strategies)

Biodiversity:
Description: this zone is mainly part of the Upper Nimpkish draft landscape unit, which also comprises RMZ 13, as well as protected areas; CWHxm2 is the dominant ecosystem type, which is significantly underrepresented in protected areas; potential for regional connectivity function
Objective: General Biodiversity Conservation Management
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[32] of the landscape units, such retention should be concentrated[33] within the SMZ-portion of the landscape units; in CWHxm2: retain/restore old seral forest attributes in accordance with old seral targets through active silvicultural measures

Water:
Description: generally stable terrain, but high equivalent clearcut area
Objective: General Watershed Management

Recreation Resources:
Description: associated with Woss and Hoomak Lakes, Nimpkish and Davie Rivers
Objective: Special Recreation Resource Management

Secondary Objectives

Timber:
Description: highly productive, mostly in second growth timber
Objective: Special Timber Resource Management

Tourism Resources:
Description: lake-based
Objective: General Tourism Management

Visual Resources:
Description: associated with highway and access (Woss Lake) corridors
Objective: General Visual Resource Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Cave/Karst:
Objective: General Cave/Karst Management

Access:
Objective: General Access Management

SMZ-10: Pinder-Atluck

Location: encompassing the headwaters of the Zeballos River, as well as the Pinder Creek drainage and Atluck and associated lakes

Total Area: approximately 8,000 ha

Primary Values (see LIARC report)

1 Visual qualities associated with the lakes and road corridor
2 Fish and wildlife habitat and populations
3 Recreation opportunities at the lakes

Overall Management Guidance: focus should be on maintenance of recreational opportunities and viewsheds associated with lakes, as well as maintenance of wildlife and fish habitats

Primary Objectives

Visual Resources:
Description: viewsheds around lakes, Pinder Peak and along road corridors are visually sensitive
Objective: Special Visual Resource Management with emphasis in above areas

Recreation Resources:
Description: lake-based recreational values; also karst values
Objective: Special Recreation Resource Management

Wildlife:
Description: deer/elk winter range
Objective: Special Wildlife Management

32 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
33 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

Fish:
Description: moderate, lake-based
Objective: General Fish Management

Water:
Description: some terrain hazards indicated, generally low equivalent clearcut area
Objective: General Watershed Management

Secondary Objectives

Timber:
Description: moderate to high productivity, high proportion of mature timber in Pinder drainage
Objective: Special Timber Resource Management

Biodiversity:
Description: this zone is part of the Lower Nimpkish draft LU, which also encompasses RMZ 10, as well as protected area; mostly CWHvm1, but some xm2; high portion of old seral forest in Pinder drainage
Objective: Basic Biodiversity Conservation Management
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[34] of the landscape unit, such retention should be concentrated[35] within the SMZ-portion of the landscape unit; retain old seral forest in CWHxm2, in accordance with full old seral targets

Tourism Resources:
Description: lake-based
Objectives: General Tourism Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Cave/Karst:
Objective: General Cave/Karst Management

Access:
Objective: General Access Management

SMZ-11: Schoen-Strathcona

Location: extending along the height of land between Schoen Lake and Strathcona Parks

Total Area: approximately 23,400 ha

Primary Values (see LIARC report)

1 Old growth biodiversity and connectivity functions (particularly in Schoen Creek drainage)
2 Wildlife and fish habitats and populations (upper White River, Consort Creek, Gold River)
3 Visual qualities associated with Victoria and Warden Peaks

Overall Management Guidance: focus should be on maintenance of old growth biodiversity and habitat values, as well as backcountry recreation potential and maintenance of viewsheds around Victoria and Warden Peaks; this SMZ should become a focal area for old growth retention at the landscape level

Primary Objectives

Wildlife:
Description: dispersed pockets of ungulate winter range; wetland habitats
Objective: Special Wildlife Management

Fish:
Description: high anadromous values in White River and Schoen Creek system
Objective: General Fish Management

Biodiversity:
Description: this zone is mainly situated in the Gold and White draft LUs, which also encompass RMZ 22 and 29, as well as protected areas; smaller portions of the zone are in the Upper Nimpkish draft LU; mostly CWHvm1, vm2 and MH variants; high proportion of old seral forests; regional connectivity function
Objective: Special Biodiversity Conservation Management in parts of the zone situated in the Gold and White LU, General Biodiversity Conservation Management in parts of the zone situated in the Upper Nimpkish LU

34 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
35 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

Strategy: to the extent that old seral forest retention will be required within the contributing land base portions[36] of the landscape units, such retention should be concentrated[37] within the SMZ-portion of the landscape units

Water:

Description: very sensitive terrain, low equivalent clearcut area; lower section of Salmon River is area of settlement with known risk of flooding

Objective: General Watershed Management

Visual Resources:

Description: viewsheds associated with Victoria, Warden and Queen Peaks

Objective: Special Visual Resource Management in above-noted areas

Strategy: maintain viewsheds visible from Schoen Lake and Strathcona Parks

Secondary Objectives

Recreation Resources:

Description: backcountry potential associated with alpine setting in Sutton Range and Victoria Peak, as well as Stewart Lake

Objective: General Recreation Resource Management

Timber:

Description: moderate to high productivity in lower elevations; high proportion of mature timber

Objective: Special Timber Resource Management

Tourism Resources:

Description: high backcountry potential in Schoen Creek and Sutton Range areas

Objective: General Tourism Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Cave/Karst:

Objective: General Cave/Karst Management

Access:

Objective: General Access Management

SMZ-12: Western Nootka Island

Location: extending along western and north-western outer coast of Nootka Island

Total Area: approximately 17,100 ha

Primary Values (see LIARC report)

1 Coastal and upland recreation values
2 Scenic values visible from marine zone
3 Coastal wildlife and fish habitats
4 Endangered/threatened marine species and habitat (sea otters, sea lions)
5 Archaeological resources

Overall Management Guidance: management emphasis should be on integrity of scenic/ tourism/ recreation values associated with coastline, as well as maintenance of marine mammal and waterfowl habitat integrity; archaeological values to be maintained where they occur; maintain special timber management opportunities

Primary Objectives

Visual Resources:

Description: high visual sensitivity along entire coastline

Objective: Special Visual Resource Management

Recreation Resources:

Description: associated with outer coastline: anchorages, beaches, wildlife viewing; particular values in Ferrer Point area: kayaking, boating, fishing, camping

Objective: Special Recreation Resource Management

Strategies: consider recreation site and/or sensitive area designation under FPC for Ferrer Point; consider joint management with First Nations; consider establishment of wilderness trail corridor

Tourism Resources:

Description: high coastal opportunities, high lodge/resort potential (e.g. Nuchatlitz Inlet)

Objective: Special Tourism Management

Wildlife:

Description: high coastal wildlife values: sea otters, fish, waterfowl; average upland values for large carnivores and ungulates

Objective: Special Wildlife Management with emphasis on coastal species and habitats

36 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

37 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU

Strategies: develop habitat management strategies for coastal species

Fish:

Description: anadromous values in lower reaches of streams

Objective: General Fish Management

Cultural Heritage:

Description: known archaeological values

Objective: General Cultural Heritage Resource Management

Water:

Description: sensitive terrain, low equivalent clearcut area

Objective: General Watershed Management

Secondary Objectives

Biodiversity:

Description: this zone is part of the Nootka draft landscape unit, which also encompasses RMZ-20 (Nootka); high marine biodiversity values; moderate upland forest biodiversity values

Objective: General Biodiversity Conservation Management

Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[38] of the landscape unit, such retention should be concentrated[39] within the SMZ-portion of the landscape unit; special attention to coastal biodiversity values

Timber:

Description: moderate to high productivity (except shore pine), mostly mature timber

Objective: Special Timber Resource Management

Cave/Karst:

Objective: General Cave/Karst Management

Access:

Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:

Description: considerable moderate to good potential for finfish culture and shellfish culture
(in addition: provincially significant kelp resources)

SMZ-13: Nahmint

Location: encompasses Nahmint River watershed

Total Area: approximately 24,900 ha

Primary Values (see LIARC report)

1 Old growth biodiversity and connectivity functions
2 Fish and wildlife habitats and populations
3 Visual quality for recreationists in Nahmint Valley
4 Linkage to possible high elevation Wilderness Area (Mt. Gibson, Klitsa Mountain)

Overall Management Guidance: emphasis should be on high biodiversity values, with high levels of old seral forest retention; maintenance of recreational values associated with Nahmint River and Lake

Primary Objectives

Wildlife:

Description: dispersed pockets of winter range, overall high value and capability for ungulates, carnivores, marbled murrelet and northern goshawk; waterfowl wintering area and estuary habitat in Nahmint Bay, lower Nahmint

Objective: Special Wildlife Management

Fish:

Description: high anadromous values in Nahmint system

Objective: General Fish Management

Biodiversity:

Description: this zone is identical with the Nahmint draft landscape unit; mostly CWHvm1; high proportion of old seral forests; very large Douglas Fir in Nahmint Old Growth area (identified through Nahmint Watershed Review, 1991)

Objective: Special Biodiversity Conservation Management

Strategies: maintain high proportion of old forest, including large Douglas Fir in the Nahmint Old Growth Area

Visual Resources:

Description: high visual sensitivity all along lower Nahmint and surrounding Nahmint Lake

Objective: Special Visual Resource Management

38 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

39 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

Recreation Resources:
Description: associated with Nahmint River and Lake
Objective: Special Recreation Resource Management

Water:
Description: low equivalent clearcut area
Objective: General Watershed Management

Secondary Objectives

Timber:
Description: moderate to high productivity, high proportion of mature timber
Objective: Special Timber Resource Management

Tourism Resources:
Description: associated with Nahmint Bay, Lake and backcountry in upper Nahmint River
Objective: General Tourism Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Cave/Karst:
Objective: General Cave/Karst Management

Access:
Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for finfish culture and shellfish culture

SMZ-14: Barkley Sound

Location: includes provincial Crown land on islands and along the ocean facing slopes surrounding Barkley Sound

Total Area: approximately 17,500 ha

Primary Values (see LIARC report)

1. Visual resources associated with marine zone and islands
2. Recreation values, opportunities
3. Rare/threatened marine species populations and habitats
4. Archaeological values

Overall Management Guidance: particular emphasis should be on maintenance of marine/coastal recreation opportunities, as well as marine/coastal habitats; resource management should be guided by the Barkley Sound Planning Strategy (1994), the objectives below, and the Code requirements

Primary Objectives

Visual Resources:
Description: most of the upland area, particularly as seen from the Broken Islands, is highly visually sensitive
Objective: Special Visual Resource Management

Recreation Resources:
Description: high marine and coastal values: kayaking, canoeing, boating, fishing
Objective: Special Recreation Resource Management

Tourism Resources:
Description: very high values in marine area, land/water interface; high lodge/resort potential in Cataract peninsula
Objective: Special Tourism Management

Wildlife:
Description: high habitat values for marine/coastal species: river otter, bald eagle, marbled murrelet, waterfowl, sea lions; moderate upland values
Objective: Special Wildlife Management with emphasis on coastal species
Strategies: develop habitat management strategies for coastal species

Fish:
Description: high anadromous values in lower stream reaches
Objective: General Fish Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Community Water:
Description: the area draining to Haggard Lake is designated as community watershed
Objective: Community Watershed Management

Water:
Description: low equivalent clearcut area in upland portions
Objective: General Watershed Management

Secondary Objectives

Timber:
Description: moderate to high productivity, high proportion of mature timber
Objective: Special Timber Resource Management

Biodiversity:
Description: this zone is part of the Toquart, Effingham, Henderson and Barkley Sound Islands

draft landscape units; high marine biodiversity values, basic upland values
Objective: Basic Biodiversity Conservation Management for part of the zone situated in Henderson LU; General Biodiversity Conservation Management for part of the zone situated in Toquart and Effingham LUs
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[40] of the landscape units, such retention should be concentrated[41] within the SMZ-portion of the landscape units; special marine biodiversity habitat conservation management indicated

Cave/Karst:
Objective: General Cave/Karst Management

Access:
Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:
Description: considerable good and moderate potential for finfish culture and shellfish culture and many existing operations

SMZ-15: Tofino Mudflats

Location: Tofino mudflats, Browning Passage

Primary Values (see LIARC report)

1 Estuary/mudflat habitat for fish and waterfowl
2 Sheltered waters habitat for waterfowl;

Overall Management Guidance: primary focus is on maintenance of high marine/intertidal habitat values and species diversity; recreational activities should be subject to compatibility with these primary habitat values

Primary Objectives

Wildlife:
Description: Estuary/mudflat habitat for fish and waterfowl; this zone is designated as wildlife management area (WMA)
Objective: manage in accordance with WMA designation
Strategies: need to develop special marine wildlife strategies

Fish:
Description: Estuary/mudflat habitat for fish and waterfowl
Objective: General Fish Management

Biodiversity:
Description: high marine species and habitat biodiversity
Objective: Special Marine Biodiversity Management objectives and strategies need to be developed

Secondary Objectives

Recreation Resources:
Description: associated with land/water interface, islands, kayaking
Objective: Special Recreation Resource Management

Tourism Resources:
Description: kayaking, existing facilities
Objectives and strategies: Special Tourism Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Visual Resources: refer to Scientific Panel recommendations for Clayoquot Sound

Access:
Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:
Description: some good potential for shellfish culture and existing culture and harvest operations

SMZ-16: Saanich Inlet

Primary Values and Location (see LIARC report)

1 Marine water quality
2 Waterfowl habitat areas
3 Estuarine habitat
4 Recreation values and opportunities

Applicable Management Objectives and Strategies:

This SMZ is entirely comprised of the marine environment (including the foreshore along some portions of the periphery). The general values

40 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;
41 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

identified by CORE and reiterated in the LIARC Report pertain to the marine environment, however they are largely affected by the management, development and regulation of land use activities in the adjacent upland areas. The establishment of this SMZ has been intended to signal the significance of the values within the inlet and the need for upland authorities (particularly local governments and in co-operation with provincial and federal agencies) to work together to implement appropriate policy and action to promote the long term conservation and restoration of the quality of the adjacent marine environment.

The Saanich Inlet Study, a major initiative by the Ministry of Environment, Lands and Parks, has reviewed the resource and environmental values and qualities of the inlet in considerable technical detail. Consequently, the values, conclusions and recommendations identified by this study should be considered in the formulation of locally-developed management objectives.

It is most appropriate that local authorities whose jurisdictions surround Saanich Inlet, with participation from provincial and federal agencies and from the local public, develop a co-ordinated program of management objectives, strategies and action plans.

SMZ-17: Strathcona-Taylor

Location: extending from Strathcona Park (McBride Creek) to west end of Sproat Lake; connecting with Nahmint SMZ

Total Area: approximately 12,100 ha

Primary Values (see LIARC report)

1 Old growth biodiversity (Maber Creek)
2 Wildlife and fish habitats and populations
3 Connectivity (Taylor River to Strathcona Park)

Overall Management Guidance: emphasis should be on maintaining fish, wildlife and old growth biodiversity values, while maintaining special timber resource management opportunities

Primary Objectives

Wildlife:

Description: dispersed ungulate winter range
Objective: Special Wildlife Management

Fish:

Description: high anadromous values and special non anadromous cutthroat stock in Taylor River system; high non-anadromous values associated with Sproat Lake
Objective: General Fish Management

Biodiversity:

Description: this zone is part of the Sproat and Great Central draft landscape units, which also comprise portions of RMZ 35, as well as protected areas; mostly CWHmm1, some CWHxm2; high proportion of old forests
Objective: General Biodiversity Conservation Management
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[42] of the landscape units, such retention should be highly concentrated[43] within the SMZ-portion of the landscape units; long-term recovery of mature/old seral forest linkage across Taylor River drainage; focus on old seral forests in CWHxm2, as well as Maber Creek drainage

Water:

Description: some unstable terrain, low equivalent clearcut area
Objective: General Watershed Management

Secondary Objectives

Timber:

Description: moderate to high productivity in lower elevations, second growth in Dorothy Creek and Taylor River drainages, elsewhere mostly mature timber
Objective: Special Timber Resource Management

Visual Resources:

Description: sensitive viewsheds mainly along Taylor River, south shore of Great Central Lake
Objective: General Visual Resource Management

Recreation Resources:

Description: associated with Taylor River, Doran Lakes and Great Central shoreline

42 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

43 'concentrated': the intent is to retain old seral forest required for the LU to a much greater degree within the SMZ, and to a much lesser degree within the RMZ portion of the LU

Objective: General Recreation Resource Management

Tourism Resources:

Description: backcountry values along Great Central, and Maber Creek

Objective: General Tourism Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Cave/Karst:

Objective: General Cave/Karst Management

Access:

Objective: General Access Management

SMZ-18: Alberni Canal

Location: extending along outer reaches of Alberni Canal

Total Area: approximately 5,200 ha

Primary Values (see LIARC report)

1 Visual qualities as seen from waterway
2 Coastal wildlife habitats

Overall Management Guidance: emphasis should be on maintenance of visual quality as seen from marine traffic area, as well as recreation and tourism opportunities associated with marine environment; maintenance of coastal habitats

Primary Objectives

Visual Resources:

Description: visually sensitive areas along canal, defined by viewshed of marine traffic

Objective: Special Visual Resource Management

Recreation Resources:

Description: marine-based/coastal

Objective: Special Recreation Resource Management

Tourism Resources:

Description: marine-based

Objective: Special Tourism Management

Wildlife:

Description: bald eagle, basic ungulate and other mammal values

Objective: Special Wildlife Management with emphasis on coastal species and habitats

Strategies: develop habitat management strategies for coastal species

Fish:

Description: anadromous in lower Parsons Creek

Objective: General Fish Management

Community Water:

Description: Cousteau Creek is a designated community watershed

Objective: Community Watershed Management

Water:

Description: low equivalent clearcut area

Objective: General Watershed Management

Secondary Objectives

Timber:

Description: moderate to high productivity, mostly in second growth timber

Objective: Special Timber Resource Management

Biodiversity:

Description: this zone is part of the Henderson, Corrigan and Sarita draft landscape units; basic values in upland areas

Objectives: Basic Biodiversity Conservation Management for parts of the zone situated in Henderson and Sarita draft LUs, General Biodiversity Conservation Management for parts of the zone situated in Corrigan draft LU

Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[44] of the landscape units, such retention should be concentrated[45] within the SMZ-portion of the landscape units; maintain marine species and habitats

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Cave/Karst:

Objective: General Cave/Karst Management

Acess:

Objective: General Access Management

SMZ-19: Quadra Island

Location: comprises all provincial Crown forest on Quadra Island outside of protected areas, excluding the northern portion (north of Small Inlet), as well as the southern, mostly private portion.

Total Area: approximately 15,800 ha

PRIMARY VALUES (see LIARC report)

1. Ecosection biodiversity/ representation
2. Coastal and shorelands wildlife values
3. Visual qualities, esp. in association with marine recreation and major road corridors

OVERALL MANAGEMENT GUIDANCE: focus should be on biodiversity conservation at the intermediate level of significance with active replacement of old seral forest attributes and ages in CWH xm forests; maintenance of scenery/recreation and tourism values associated with shoreline, major road corridors and high recreation use areas, as well as maintenance of coastal wildlife habitats

PRIMARY OBJECTIVES

Biodiversity:

Description: this zone comprises the majority of the Quadra draft landscape unit, which also comprises portions of the Quadra-Cortes RMZ (#32), as well as protected areas; the zone is dominated by the CWHxm2 variant; while old forests are rare in this variant, a significant amount of mid-seral/mature second growth forests are protected in the Main Lakes Chain protected area

Objective: General Biodiversity Conservation Management

Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[46] of the landscape unit, such retention should be concentrated[47] within the SMZ-portion of the landscape unit; maintain existing old forest in the zone, as well as second growth with high portion of veteran trees; manage to replace old forest in the long term (>150 years) in accordance with old seral targets for intermediate BEO; focus old seral replacement in CWHxm2, concentrated along riparian areas and, where possible, adjacent to existing old seral forest; recruit old seral habitat blocks with higher priority on forest interior conditions than on old seral connectors; maintain harvest opportunity in second growth by identifying some old growth recruitment areas in early seral forest; recruit mature forest in the mid (>50 years) term, building gradually towards a mature seral target of 25%; actively create mature and old seral forest attributes through suitable management strategies, such as variable density thinning or partial cutting silvicultural systems

Visual Resources:

Description: primary visually sensitive areas along coastline and major road corridors, secondary values surrounding lakes and along hiking routes

Objective: Special Visual Resource Management

Recreation Resources:

Description: recreational use and values in Wyatt Bay/Small Inlet (heritage trail, portage), trails in Mount Seymour and Chinese Mts., as well as Morte and Nugedzi Lake areas; shoreline

Objective: Special Recreation Resource Management in above areas; General Recreation Resource Management in other less frequented/significant areas

Tourism Resources:

Description: kayaking and boating along shoreline, scenic values and hiking opportunities

Objective: Special Tourism Management with focus on above mentioned values and activities

Wildlife:

Description: high values for marine/coastal species (eagles, waterfowl); moderate upland/interior forest habitat values (capability for marbled murrelet, northern goshawk)

Objective: Special Wildlife Management with emphasis on coastal species and habitats;

Strategies: develop habitat management strategies for coastal species

Fish:

Description: high values, particularly associated with lakes

Objective: General Fish Management

Water:

Description: generally stable terrain, low equivalent clearcut area

Objective: General Watershed Management

44 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

45 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

46 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

47 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

Secondary Objectives

Timber:

Description: overall moderate productivity, almost entirely in second growth forests

Objective: Special Timber Resource Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Cave/Karst:

Objective: General Cave/Karst Management

Access:

Objective: General Access Management

Non-Forest Resource Descriptions

Aquaculture:

Description: some moderate to good potential for finfish culture and shellfish culture and some existing operations

SMZ-20: Upper Qualicum

Location: Crown forests along Upper Qualicum River, upstream from Horne Lake Caves park

Total Area: approximately 1,500 ha

Primary Values (see LIARC report)

1 Ecosection biodiversity representation
2 Recreation opportunities associated with the river
3 Wildlife and fish habitats and populations

Overall Management Guidance: this small zone should be managed with focus on retention/ replacement of old seral forest attributes, as well as demonstration of alternative silvicultural practices throughout

Primary Objectives

Biodiversity:

Description: this zone is part of the Rosewall draft landscape unit; almost entirely CWHxm2;

Objective: General Biodiversity Conservation Management

Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[48] of the landscape unit, such retention should be highly concentrated[49] within the SMZ-portion of the landscape unit; maintain existing old forest in the zone, as well as second growth with high portion of veteran trees; manage to replace old forest in the long term (>150 years) in accordance with old seral targets for intermediate BEO; focus of old seral recruitment should be along riparian areas and, where possible, adjacent to existing old seral forest; recruit old seral habitat blocks with higher priority on forest interior conditions than on old seral connectivity; maintain harvest opportunity in second growth by identifying some old growth recruitment areas in early seral forest; recruit mature forest in the mid (>50 years) term, building gradually towards a mature target of 25%; actively create mature and old seral forest attributes through suitable management strategies, such as variable density thinning and/or partial cut silvicultural systems

Recreation Resources:

Description: high day-use associated with river

Objective: Special Recreation Resource Management

Tourism Resources:

Description: high day-use associated with river

Objective: Special Tourism Management

Wildlife:

Description: high riparian habitat values

Objective: Special Wildlife Management

Fish:

Description: high fisheries values

Objective: General Fish Management

Water:

Description: low equivalent clearcut area

Objective: General Watershed Management

Secondary Objectives

Timber:

Description: high productivity, second growth timber

Objective: Special Timber Resource Management throughout

Strategies: special focus should be on non-clearcut silvicultural systems, and creation of old seral forest elements and attributes

Visual Resources:

Description: not inventoried as visually sensitive

Objective: General Visual Resource Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

48 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

49 'concentrated': the intent is to retain old seral forest required for the LU to a greater degree within the SMZ, and to a lesser degree within the RMZ portion of the LU.

Cave/Karst:
Objective: General Cave/Karst Management
Access:
Objective: General Access Management

SMZ-21: Walbran Periphery

Location: extending along east side of Walbran protected area

Total Area: approximately 2,600 ha

Primary Values (see LIARC report)

1 Fish habitat
2 Old growth biodiversity
3 Recreation opportunities

Overall Management Guidance: this zone should be managed as a focal area for old seral forest retention, with emphasis on riparian areas; recreational access management

Primary Objectives

Biodiversity:
Description: this zone is part of the Walbran draft landscape unit, which also comprises part of RMZ 46, as well as Walbran protected area; CWHvm1 and vm2, almost entirely in old growth
Objective: General Biodiversity Conservation Management
Strategies: to the extent that old seral forest retention will be required within the contributing land base portions[50] of the landscape unit, such retention should be highly concentrated[51] within the SMZ-portion of the landscape unit
Wildlife:
Description: high summer capability for ungulates, as well as high capability for marbled murrelet and northern goshawk
Objective: Special Wildlife Management
Fish:
Description: known anadromous values in Walbran Creek
Objective: General Fish Management
Recreation Resources:
Description: low current use, anticipated increase in future; values associated with Walbran Creek, as well as access to Carmanah Walbran Protected Area
Objective: Special Recreation Resource Management
Water:
Description: some sensitive terrain, low equivalent clearcut area
Objective: General Watershed Management

Secondary Objectives

Visual Resources:
Description: sensitive viewsheds as seen from Walbran Creek, particularly House Cone Mt.
Objective: General Visual Resource Management
Strategies: maintain viewsheds visible from protected area
Tourism Resources:
Description: potential for backcountry tourism use
Objective: General Tourism Management
Timber:
Description: high productivity and high proportion of mature timber
Objective: Special Timber Resource Management
Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management
Cave/Karst:
Objective: General Cave/Karst Management
Access:
Objective: General Access Management

SMZ-22: San Juan Ridge

Location: extending along San Juan Ridge

Total Area: approximately 2,900 ha

Primary Values (see LIARC report)

1 Upland recreational opportunities and values
2 Visual qualities associated with trail corridor

Overall Management Guidance: primary focus is on maintenance of recreational and scenic values and opportunities associated with the trail

Primary Objectives

Visual Resources:
Description: scenic values associated with viewsheds from the trail

50 contributing land base: this is the timber harvesting land base (THLB) which contributes to the allowable annual cut (AAC), as defined in the Timber Supply Review for a timber supply area or tree farm licence;

51 'concentrated': the intent is to retain old seral forest required for the LU to a much greater degree within the SMZ, and to a much lesser degree within the RMZ portion of the LU

Objective: Special Visual Resource Management
Strategies: as the area encompassed within this zone is small and linear, there is limited opportunity to manage visual values within this zone; harvesting should be designed and placed to facilitate open viewsheds along the trail

Recreation Resources:
Description: associated with the trail
Objective: Special Recreation Resource Management
Strategies: maintain and/or enhance recreational values associated with the trail

Tourism Resources:
Description: trail
Objective: Special Tourism Management

Fish:
Description: headwaters of tributaries to San Juan River and Loss Creek
Objective: General Fish Management

Water:
Description: low equivalent clearcut area, some terrain sensitivities
Objective: General Water Management

Secondary Objectives

Biodiversity:
Description: this zone is part of the San Juan and Loss draft LU, with minor portions in the Tugwell draft LU; blue listed flora
Objectives: General Biodiversity Conservation Management for parts of the zone situated in San Juan draft LU; Basic Biodiversity Conservation Management for parts of the zone situated in Loss and Tugwell draft LUs
Strategies: old forest retention within this SMZ should only occur to the extent that it does not detract from the recreation and visual primary objectives

Wildlife:
Description: limited ungulate values, due to size and shape of the zone; rare and endangered plants
Objective: General Wildlife Management

Timber:
Description: lower to moderate productivity, mix of immature and mature timber
Objective: Special Timber Resource Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Cave/Karst:
Objective: General Cave/Karst Management

Access:
Objective: General Access Management

4.3.2 General Management Zones RMZ

Intent

The intent of the General Management Zone (GMZ) is to identify Crown land, coastal nearshore areas and private land within TFLs where a wide range of resource values are found, including fish, wildlife, recreation, water, tourism, aquaculture cultural and scenic values. They are to be managed in accordance with all general legislated requirements and the principles of integrated resource management, based on an ecosystem approach. The 25 upland GMZ units occupy 1,027,994 ha (31% of the Island).

All coastal areas not included within boundaries of PA, SMZ or EFZ areas are allocated to the General Management Zone category.

General Management Regimes

The general management regimes, which apply in the 25 upland GMZs and the coastal area are based on the requirements for integrated resource management, reflected in the pertinent resource legislation and policy.

Table 7 presents a summary of the application of the various regimes in the individual GMZ units. Note that the regimes for biodiversity are labeled basic, general and higher, reflecting the Code requirements regarding biodiversity emphasis assignment (lower, intermediate and higher emphasis) to landscape units. Some GMZ units have been assigned the Enhanced Silviculture regime based on their particular suitability and to encourage enhanced silviculture practices (while pursuit of these practices is encouraged, it is not mandatory). For areas within GMZ units where community watersheds are established under the Code, the community watershed regime is assigned.

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Table 7: Management Regimes for Individual GMZ Units

	GMZ Units	TIM	WAT	FISH	WL	BIO	VIS	REC	TOU	C/K	CULT HER	ACC
1	Nigei	G	G	G	G	B	G	G	G		G	G
2	Shushartie	G	G	G	G	H	G	G	G		G	G
3	Nahwitti-Tsulquate	G	CW/G	G	G	G	G	G	G	G	G	G
7	Marble	G/ES	G	G	G	G	G	G	G	G	G	G
9	Klaskish	G	G	G	G	H	G	G	G	G	G	G
12	Malcolm	G	G	G	G	B	G	G	G		G	G
13	Woss-Vernon	G/ES	G	G	G	G	G	G	G	G	G	G
14	Kashutl	G	G	G	G	B	G	G	G	G	G	G
16	Zeballos	G	G	G	G	B	G	G	G	G	G	G
17	Artlish-Kaouk	G	G	G	G	G	G	G	G	G	G	G
20	Nootka	G	G	G	G	G	G	G	G	G	G	G
22	Gold	G	G	G	G	H	G	G	G	G	G	G
25	Escalante	G	G	G	G	B	G	G	G	G	G	G
26	Tsitika	G	G	G	G	H	G	G	G		G	G
29	White	G	G	G	G	H	G	G	G	G	G	G
31	Sayward	G	G	G	G	G	G	G	G	G	G	G
32	Quadra-Cortes	G(S)		G	G	G	G	G	G		G	G
33	E&N-North	G/ES	G	G	G	B	G	G	G	G	G	G
34	E&N-South	G/ES	CW/G	G	G	B/G	G	G	G	G	G	G
35	Ash-Great Central-Sproat	G/ES	CW/G	G	G	G	G	G	G	G	G	G
37	Henderson	G	G	G	G	B	G	G	G	G	G	G
39	Toquart	G	CW/G	G	G	G	G	G	G	G	G	G
41	Cameron-China	G	CW	G	G	G	G	G	G	G	G	G
45	Nitinat	G/ES	G	G	G	G	G	G	G	G	G	G
46	Gordon-Caycuse-San Juan	G/ES	CW/G	G	G	G	G	G	G	G	G	G

Note: Cave/Karst management is limited to those RMZs with known features or high probability of such occurrence

TIM: Timber; **BIO** Biodiversity; **C/K** Cave Karst; **WAT** Water; **VIS** Visual; **CULT.HER** Cultural Heritage; **FISH** Fish; **REC** Recreation; **ACC** Access; **WL** Wildlife; **TOU** Tourism; Regimes: S - Special; G - General; B - Basic; H - Higher; ES - Enhanced Silviculture; CW - Community Water

General Timber Resource Management Regime

Overall Goal/Intent: To promote standard timber harvesting and production in accordance with principles of integrated resource management (IRM)[52].

Objectives

To harvest, regenerate and tend timber resources, and to maintain their health, in accordance with the Forest Practices Code and other pertinent legislation.

Strategies

- Manage in accordance with all pertinent legislation.
- Refer also to the strategies offered in the individual zone descriptions.

52 Integrated Resource Management (IRM): means a process that identifies and considers all resource values, along with social, economic and environmental needs, with the goal of resource stewardship guided by the principle of sustainable use.

Table 7: Management Regimes for Individual GMZ Units

	GMZ Units	TIM	WAT	FISH	WL	BIO	VIS	REC	TOU	C/K	CULT HER	ACC
1	Nigei	G	G	G	G	B	G	G	G		G	G
2	Shushartie	G	G	G	G	H	G	G	G		G	G
3	Nahwitti-Tsulquate	G	CW/G	G	G	G	G	G	G	G	G	G
7	Marble	G/ES	G	G	G	G	G	G	G	G	G	G
9	Klaskish	G	G	G	G	H	G	G	G	G	G	G
12	Malcolm	G	G	G	G	B	G	G	G		G	G
13	Woss-Vernon	G/ES	G	G	G	G	G	G	G	G	G	G
14	Kashutl	G	G	G	G	B	G	G	G	G	G	G
16	Zeballos	G	G	G	G	B	G	G	G	G	G	G
17	Artlish-Kaouk	G	G	G	G	G	G	G	G	G	G	G
20	Nootka	G	G	G	G	G	G	G	G	G	G	G
22	Gold	G	G	G	G	H	G	G	G	G	G	G
25	Escalante	G	G	G	G	B	G	G	G	G	G	G
26	Tsitika	G	G	G	G	H	G	G	G		G	G
29	White	G	G	G	G	H	G	G	G	G	G	G
31	Sayward	G	G	G	G	G	G	G	G	G	G	G
32	Quadra-Cortes	G(S)		G	G	G	G	G	G		G	G
33	E&N-North	G/ES	G	G	G	B	G	G	G	G	G	G
34	E&N-South	G/ES	CW/G	G	G	B/G	G	G	G	G	G	G
35	Ash-Great Central-Sproat	G/ES	CW/G	G	G	G	G	G	G	G	G	G
37	Henderson	G	G	G	G	B	G	G	G	G	G	G
39	Toquart	G	CW/G	G	G	G	G	G	G	G	G	G
41	Cameron-China	G	CW	G	G	G	G	G	G	G	G	G
45	Nitinat	G/ES	G	G	G	G	G	G	G	G	G	G
46	Gordon-Caycuse-San Juan	G/ES	CW/G	G	G	G	G	G	G	G	G	G

Note: Cave/Karst management is limited to those RMZs with known features or high probability of such occurrence

TIM: Timber; **BIO** Biodiversity; **C/K** Cave Karst; **WAT** Water; **VIS** Visual; **CULT.HER** Cultural Heritage; **FISH** Fish; **REC** Recreation; **ACC** Access; **WL** Wildlife; **TOU** Tourism; Regimes: S - Special; G - General; B - Basic; H - Higher; ES - Enhanced Silviculture; CW - Community Water

General Timber Resource Management Regime

Overall Goal/Intent: To promote standard timber harvesting and production in accordance with principles of integrated resource management (IRM)[52].

Objectives

To harvest, regenerate and tend timber resources, and to maintain their health, in accordance with the Forest Practices Code and other pertinent legislation.

Strategies

- Manage in accordance with all pertinent legislation.
- Refer also to the strategies offered in the individual zone descriptions.

52 Integrated Resource Management (IRM): means a process that identifies and considers all resource values, along with social, economic and environmental needs, with the goal of resource stewardship guided by the principle of sustainable use.

General Watershed Management Regime

Overall Goal/Intent: To maintain watershed hydrological and terrain integrity.

Objectives

In accordance with the Forest Practices Code and other pertinent legislation:

- minimize impacts from land-use activities on water quality, quantity, and timing of flows;
- minimize risk from flooding and erosion.

Strategies

Manage hydrological impacts using integrated resource management under the Code and other pertinent legislation.

Refer also to the strategies offered in the individual zone descriptions.

Community Watershed Management Regime

Overall Goal/Intent: To maintain integrity of designated community watersheds.

Objectives

To maintain water quality, quantity, and timing of flow in designated community watersheds in accordance with the Forest Practices Code and other pertinent legislation.

Strategies

Apply the provisions under the *Forest Practices Code of BC Act* and other pertinent legislation to designated community watersheds.

General Fish Management Regime

Overall Goal/Intent: To maintain the integrity of all aquatic systems supporting fish, including the biodiversity function of riparian systems.

Objectives

In accordance with the Forest Practices Code and other pertinent legislation, apply practices designed to:

- minimize impacts from development activities on stream channel dynamics, aquatic ecosystems, and water quality of fish streams, lakes, and wetlands;
- minimize impacts from development activities on the diversity, productivity, and sustainability of riparian reserve zones adjacent to streams, lakes and wetlands.

Strategies

Apply all legislated requirements under the code and other pertinent legislation which include, but are not limited to:

In accordance with the provisions of the Operational Planning Regulation, ensure that a forest development plan includes:

- identification of known fish streams and known riparian class of streams, lakes and wetlands;
- the general objectives for riparian management zones, including the range of basal area retention by stream class.

Where a riparian management area has only a management zone, ensure, in accordance with the provisions of the Timber Harvesting Practices Regulation, that:

- sufficient streamside trees are retained to prevent increases in stream temperature of known temperature sensitive streams;
- windfirm streamside trees are not felled or removed that are rooted in the stream bank and whose root system contributes to the maintenance of stream bank stability.

In addition, use the recommendations provided in the 'Riparian Management Area Guidebook', as a guide for forest practices within riparian areas; these include, but are not limited to:

- where a riparian management area has both a management zone and a reserve zone, retain important wildlife habitat attributes, including wildlife trees, large trees, hiding and resting cover, nesting sites, structural diversity, coarse woody debris, and food sources characteristic of natural riparian ecosystems;
- apply the "Best Management Practices" for riparian management zones, consistent with the maximum overall levels of basal area retention.

Refer also to the strategies offered in the individual zone descriptions.

General Wildlife Management Regime

Overall Goal/Intent: To maintain the diversity and abundance of native species and their habitats.

Objectives	Strategies
To manage and conserve known wildlife habitat in accordance with the Forest Practices Code and other pertinent legislation	The following strategies are offered for consideration, where suitable: • identify, establish and make known ungulate winter ranges (UWR) and establish management objectives for UWR in SMZ in accordance with pertinent legislation and policy; • where appropriate, apply suitable silvicultural techniques to manage and conserve known ungulate winter range; • manage species at risk in accordance with the Forest Practices Code and Cabinet-approved strategies; • provide for wildlife tree patches in accordance with FPC requirements; • where stand density management measures are planned for areas adjacent to known ungulate winter ranges, wildlife habitat areas or in large contiguous areas of even-aged second growth forests, consider variable-density spacing/thinning to provide for wildlife habitat attributes and forage. Refer also to the strategies offered in the individual zone descriptions.

Basic Biodiversity Conservation Management Regime

Overall Goal/Intent: To maintain natural elements and attributes of biodiversity at the basic stewardship level of biodiversity conservation.

Objectives	Strategies
(1) To manage forested ecosystems to maintain key elements of biodiversity[53] at a lower emphasis level. **(2)** Specific to Enhanced Forestry Zones, to achieve objective (1) above while minimizing timber supply impacts.	Manage the forested ecosystems in the zone consistent with the Forest Practices Code requirements[54] for the lower biodiversity emphasis option.[55] In Enhanced Forestry Zones, the following strategies are offered for consideration: <u>Seral stage distribution:</u> • do not apply early seral targets; • do not apply 'mature plus old' seral targets; • consider partial cutting in old forests required to meet seral targets, provided important attributes of old-aged stands are retained; <u>Old seral retention and representativeness</u> • retention targets apply at the biogeoclimatic variant level; • to the greatest extent possible, the old seral forest contribution will be from lands withdrawn from the timber harvesting land base (THLB) or managed for non-timber resource objectives (riparian reserves, sensitive soils, wildlife habitat areas, gully management areas, inoperable areas, visually sensitive areas, etc.); • where the old seral forest contribution from such lands is not sufficient to attain the retention targets, the shortfall will be met from forests within the timber harvesting land base;

53 Key elements include, but are not limited to: old seral forests, wildlife tree patches;

54 as defined in pertinent legislation and policy;

55 Seral stage and other landscape level biodiversity requirements of the Code apply to landscape units (LU). While the zone boundaries for general and enhanced zones generally follow the draft LU boundaries identified, boundaries for special zones and protected areas are not aligned with LU boundaries in every case. For this reason, more than one zone may occur within a given draft LU. The strategies presented are intended for application in the particular zone type referenced in the text, as it occurs within a given LU. Depending on the characteristics of the landscape, additional specific strategies may be outlined in the individual zone descriptions to provide more direction or emphasis, where appropriate.

Basic Biodiversity Conservation Management Regime...

- where old growth management areas (OGMAs) are required within the timber harvesting land base, consider wildlife habitat requirements and objectives identified for the zone, in addition to ecosystem representativeness as criteria for delineating OGMAs
- harvesting of old seral forests may proceed down to one third of the old seral target, provided suitable old growth recruitment areas are identified; where indicated in individual zone strategies, consider retaining more than one third of the old seral target, unless this would cause severe short-term timber supply impacts;
- provision of forest interior conditions will normally be a lower priority;

Landscape connectivity

- connectivity will be achieved primarily through the distribution of patch sizes, through areas excluded from the timber harvesting land base, and through stand level management, as well as, where possible, the design of forest linkages;
- management for connectivity objectives must not result in the area of old seral forest exceeding the retention targets for lower biodiversity emphasis;

Refer also to the strategies offered in the individual zone descriptions.

General Biodiversity Conservation Management Regime

Overall Goal/Intent: To maintain natural elements and attributes of biodiversity at an intermediate level of biodiversity conservation.

Objectives	Strategies
(1) To manage forested ecosystems to maintain key elements of biodiversity[56] at an intermediate emphasis level.	Manage the forested ecosystems in the zone consistent with the Forest Practices Code requirements for the intermediate biodiversity emphasis option[57]. In Enhanced Forestry Zones, the following strategies are offered for consideration: Seral stage distribution: • do not apply early seral targets; • do not apply 'mature plus old' seral targets; • consider partial cutting in old forests required to meet seral targets, provided important attributes of old-aged stands are retained. Old seral retention and representativeness • retention targets apply at the biogeoclimatic variant level; • to the greatest extent possible, the old seral forest contribution will be from lands withdrawn from the THLB or managed for non-timber resource objectives (riparian reserves, sensitive soils, wildlife habitat areas, gully management areas, inoperable areas, visually sensitive areas, etc.); • where the old seral forest contribution from such lands is not sufficient to attain the retention targets, the shortfall will be met from forests within the timber harvesting land base;
(2) Specific to Enhanced Forestry Zones, to achieve objective (1) above while minimizing timber supply impacts.	

56 Key elements include, but are not limited to: old seral forests, patch size distribution, wildlife tree patches;

57 Seral stage and other landscape level biodiversity requirements of the Code apply to landscape units (LU). While the zone boundaries for general and enhanced zones generally follow the draft LU boundaries identified, boundaries for special zones and protected areas are not aligned with LU boundaries in every case. For this reason, more than one zone may occur within a given draft LU. The strategies presented are intended for application in the particular zone type referenced in the text, as it occurs within a given LU. Depending on the characteristics of the landscape, additional specific strategies may be outlined in the individual zone descriptions to provide more direction or emphasis, where appropriate.

General Biodiversity Conservation Management Regime...

- old forests should generally be retained in accordance with the targets (for exceptions and/or additional strategies, refer to individual zone descriptions).

Landscape connectivity

- connectivity will be achieved primarily through the distribution of patch sizes, through areas excluded from the timber harvesting land base, and through stand level management, supplemented secondarily by the design of forest linkages;
- management for connectivity objectives should not result in the area of old seral forest exceeding the retention targets for intermediate biodiversity emphasis.

Refer also to the strategies offered in the individual zone descriptions.

Higher Biodiversity Conservation Management[58] Regime

Overall Goal/Intent: To maintain natural elements and attributes of biodiversity at a high level of biodiversity conservation.

Objectives

To manage forested ecosystems to maintain natural elements and attributes of biodiversity with emphasis on rare and underrepresented ecosystems, consistent with the higher biodiversity conservation priority of the zone.

Strategies

Manage the forested ecosystems in the zone consistent with the Forest Practices Code requirements for the higher biodiversity emphasis option[59].

If required to meet specific known wildlife objectives in the zones, provide old seral forest in forest interior conditions;

Refer also to the strategies offered in the individual zone descriptions.

General Visual Resource Management Regime

Overall Goal/Intent: To ensure development activities are managed in a manner which respects known scenic resource values, in accordance with the Forest Practices Code and other pertinent legislation.

Objectives

To design forest and other development activities in a manner which maintains the visual quality of known scenic areas identified in the zone, based on the sensitivity and significance of the area, and consistent with order and intent of the resource objectives for each zone.

Strategies

The following strategies are offered for consideration, where suitable:

- identify scenic areas in the zone and make them known, in consultation with the Ministry of Small Business, Tourism and Culture;
- in known scenic areas, apply visual landscape design principles and techniques to development activities;
- consider establishment of VQOs under the Code in areas of special significance;
- where VQOs are established, conduct visual impact assessments prior to development;
- consider the use of alternative silvicultural systems to achieve VQOs where site, stand, and ecological conditions are appropriate;
- consider restoring and/or enhancing the scenic values of areas through alterations of existing cutblock boundaries;
- consider forest practices which will minimize time to achieve visually effective green-up.

Refer also to the strategies offered in the individual zone descriptions.

58 Note: the special biodiversity conservation objective and strategies are recommended for application in certain Special and General zones only, not for Enhanced zones;

59 Seral stage and other landscape level biodiversity requirements of the Code apply to landscape units (LU). While the zone boundaries for general and enhanced zones generally follow the draft LU boundaries identified, boundaries for special zones and protected areas are not aligned with LU boundaries in every case. For this reason, more than one zone may occur within a given draft LU. The strategies presented are intended for application in the particular zone type referenced in the text, as it occurs within a given LU. Depending on the characteristics of the landscape, additional specific strategies may be outlined in the individual zone descriptions to provide more direction or emphasis, where appropriate.

General Recreation Resource Management Regime

Overall Goal/Intent: To manage development activities in a manner respecting known recreation resource values.

Objectives

To manage known recreation features, opportunities, facilities and activities in accordance with the Forest Practices Code and other pertinent legislation, and consistent with order and intent of the resource objectives for each zone.

Strategies

The following strategies are offered for consideration, where suitable:

- maintain an updated recreation inventory;
- identify and make known recreation features in the zone;
- integrate the management of known recreation features, settings and facilities with the requirements of other uses within the zone.

General Tourism Resource Management Regime

Overall Goal/Intent: To respect tourism values in integrated resource management planning, along with other values.

Objectives

To ensure that known recreation and visual resources are managed in recognition of their value to tourism and consistent with the order and intent of the resource objectives for each zone.

Strategies

Refer to general recreation and visual resource management.

General Cave/Karst Management Regime

Overall Goal/Intent: To manage impacts of forestry-related activities on sensitive cave/karst features and terrain.

Objectives

To manage impacts of activities on sensitive cave/karst features and terrain, in accordance with the Forest Practices Code and other pertinent legislation.

Strategies

The following strategies are offered for consideration, where suitable:

- prior to forestry-related development within areas of high cave/karst occurrence or potential, particular attention should be paid to issues of forestry and cave/karst interaction, including karst geology, hydrology, soils; karst and cave biology; and cultural and recreational cave and karst features;
- design development activities in a manner which minimizes and/or mitigates impacts on sensitive cave/karst features and terrain;
- once approved and available, manage cave/karst features and terrain in accordance with the cave/karst guidelines currently being developed by the Ministry of Forests.

General Cultural Heritage Management Regime

Overall Goal/Intent: To manage the cultural heritage resources and values found in forests.

Objectives	Strategies
To manage for cultural heritage values in accordance with the requirements of the *Heritage Conservation Act*, Forest Practices Code, and government policy on the Protection of Aboriginal Rights.	The following strategies are offered for consideration, where suitable: • develop and implement procedures for consultation and information sharing with First Nations regarding the identification and management of cultural heritage resources and inventory databases; • maintain a current inventory of traditional use areas and archaeological sites; • where required by legislation, conduct archaeological impact assessments prior to resource development[60] and commercial tourism activities in areas with known occurrence or high potential for occurrence of cultural heritage resources.

General Access Management Regime

Overall Goal/Intent: To plan and manage access to Crown land.

Objectives	Strategies
Plan and manage access to Crown land subject to the resource values and/or features identified for each resource management zone through landscape unit and operational planning. Manage existing established recreation trails to maintain their recreation values in consultation with appropriate agencies, recreation groups, and tourism operators. Identify new trails as part of landscape unit planning and operational planning and manage according to the resource values and/or features identified for each resource management zone.	The following strategies are offered for consideration, where suitable: • In consultation with MoF staff, tourism operators, MSBTC, BC Parks, recreational and commercial users, manage use and development activities on and adjacent to established recreation trails and incorporate this information into landscape unit and operational planning; • Using landscape unit and operational planning processes, plan the development, maintenance and deactivation of permanent and temporary roads, and use best practices in accordance with current legislation and regulations; • Identify sensitive resource values or features through landscape unit and operational planning processes, and mitigate negative impacts through access management planning, or in special circumstances, site specific access restriction[61]; • Develop and implement a consultative process involving affected agencies, First Nations, and public and tenured interests to address the non-routine deactivation of access routes and ensure that only unnecessary routes or routes posing a significant public safety hazard are deactivated[62]; • Recognize that the exploration and development of subsurface resources and the changing patterns of recreation/tourism use may require seasonal and temporary access to these resources.

60 Resource development in this instance refers to those activities which have the likelihood of removing forest cover, or result in ground disturbance or high levels of public use.

61 Intent: to limit access where that access would significantly impact another resource value i.e., a known rare and endangered plant community conflicting with a proposed road location - the implied scale is operational not watershed or landscape level

62 Intent: to address concerns of non-tenured recreational users, tourism operators and the general public regarding access road management.

General Aquaculture Management Regime

Overall Goal/Intent: To maintain and allocate capable aquaculture production areas to meet the food security, economic and social needs of society.

Objectives

To maintain resource values of importance to aquaculture.

To provide opportunities for sustainable aquaculture development in capable marine, freshwater and terrestrial areas, consistent with pertinent legislation and government policy.

Strategies

The following strategies are offered for consideration, where suitable:

- Assess the biophysical capability of marine and freshwater areas to support species currently and potentially farmed. Capability assessments will be carried out at both the regional scale and specific sites and will reflect the full range of culture methods;
- Planning for aquaculture development and the criteria that inform site allocation decisions will accommodate the variety of farmed species and culture methods and reflect the market demand for sites;
- Suitability criteria approved by government to protect important fish and wildlife habitat and specific social values will be applied to planning and site allocation processes.

Individual General Management Zone Units

This section presents a description of resource values, as well as management objectives and strategies for the 25 individual upland General Management Zone units (for a description of the coastal areas allocated to the GMZ category, please refer to Appendix 4).

The applicable objectives and strategies in each GMZ unit are presented in alphabetical order, without implying primary or secondary importance in the order listed.

The management regimes assigned to each resource value in each unit are presented in abbreviated form, i.e. as the pertinent regime titles (e.g. general wildlife management) without presenting the detailed wording of each objective and strategy. For complete wording of the general management regimes, please refer to the previous section. Where applicable, and based on available regional scale information, additional management strategies are provided for particular resource values, to clarify management advice in a given unit.

Total area figures given for the units are based on regional scale data, and may include parcels of private land. The objectives and strategies presented in this report, however, apply only to Crown land and private forest land within tree farm licence areas.

RMZ-1: Nigei

Location: Nigei Island

Total Area: approximately 6,300 ha

Zone Category and Overall Management Direction: General Management Zone, with primary focus on maintaining the significant recreational, scenic and tourism values associated with coastline; basic level of biodiversity conservation.

Forest Objectives and Strategies:

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is part of the Nigei draft landscape unit; CWHvh1 is the main variant and well represented in protected areas in the adjacent Nahwitti Lowlands ecosection
Objective: Basic Biodiversity Conservation Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: lower values
Objective: General Fish Management

Recreation Resources:
Description: fishing, diving, boating (small crafts, kayaks), anchorages
Objective: General Recreation Resource Management

Timber:
Description: only small portion of the island is operable timber, mostly immature
Objective: General Timber Resource Management

Tourism Resources:
Description: coastal and facility-based tourism opportunities
Objective: General Tourism Management

Visual Resources:
Description: entire coastline is visually sensitive
Objective: General Visual Resource Management

Water:
Description: generally high hydrological integrity
Objective: General Watershed Management

Wildlife:
Description: lower values; potential peregrine falcon habitat
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:
Description: limited moderate potential for coastal finfish culture, shellfish culture potential unknown.

RMZ-2: Shushartie

Location: comprises the portions of the Shushartie watershed (middle and upper reaches of Shushartie River) not covered by Goletas Channel SMZ (SMZ-1) and protected area

Total Area: approximately 5,900 ha

Zone Category and Overall Management Direction: General Management Zone, with high emphasis on biodiversity conservation, and maintenance of fish and wildlife values; integration of recreational and tourism values with general timber production objectives.

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is part of the Shushartie draft landscape unit, which also contains part of the Goletas Channel SMZ and part protected area; the forested ecosystems are all part of the CWHvh1 variant; high proportion of old forests; high fish, elk, marbled murrelet values
Objective: Higher Biodiversity Conservation Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high fish values (steelhead, salmon)
Objective: General Fish Management

Recreation Resources:
Description: significant recreational values along Shushartie River; proposed North Coast Trail
Objective: General Recreation Resource Management

Timber:
Description: lowlands of generally poor productivity; only a small fraction of the forested area is classified as operable, mainly along Shushartie River
Objective: General Timber Resource Management

Tourism Resources:
Description: areas in vicinity of river exhibit high capability for tourism (backcountry, as well as facility oriented)
Objectives: General Tourism Management

Visual Resources:
Description: visually sensitive areas mainly associated with SMZ portion of the watershed
Objective: General Visual Resource Management

Water:
Description: due to mostly gentle terrain and limited development history, there is generally high hydrological integrity
Objective: General Watershed Management

Wildlife:
Description: intermediate to high wildlife values (particularly ungulate winter range, marbled murrelets) associated with river and lake systems
Objective: General Wildlife Management
Strategies: maintain elk, marbled murrelet habitat areas in association with riparian management areas along rivers and lakes

NON-FOREST RESOURCE DESCRIPTIONS

Mineral Resources:

Description: moderate to high metallic mineral potential, low industrial mineral potential, many mineral tenures.

RMZ-3: NAHWITTI-TSULQUATE

LOCATION: Lowland area, often poorly drained; comprising Stranby, Nahwitti, Tsulquate and lower Quatse watersheds with tributaries

TOTAL AREA: approximately 52,300 ha

ZONE CATEGORY AND OVERALL MANAGEMENT DIRECTION: General Management Zone, with an emphasis on maintaining the fish/wildlife and recreational/tourism values associated with the major riparian systems; maintenance of community watershed integrity

FOREST OBJECTIVES AND STRATEGIES

Access:

Objective: General Access Management

Biodiversity:

Description: this zone is comprised by two draft landscape units: Nahwitti LU and Tsulquate LU; CWH vh1 is the main variant; the eastern portion of the area is part of the CWHvm1 variant within the Nahwitti Lowlands ecosection which is underrepresented in protected areas; high fish, elk, marbled murrelet values

Objective: General Biodiversity Conservation Management

Community Water:

Description: large area extending from Kains Lake along Tsulquate river is designated as (Port Hardy) community watershed

Objectives: Community Watershed Management

Cultural Heritage Resources:

Description: known archaeological sites in Fort Rupert area

Objective: General Cultural Heritage Resource Management

Cave/Karst:

Description: karst features south of Kains Lake

Objective: General Cave/Karst Management

Fish:

Description: high fish values, particularly associated with Nahwitti and lower Stranby riparian systems (steelhead, salmon)

Objective: General Fish Management

Recreation Resources:

Description: significant recreational values associated with Stranby, Nahwitti and Quatse Rivers, as well as Lake of the Mountains, Nahwitti, Georgie and Kains Lakes; proposed North Coast Trail; extensive unroaded area between Nahwitti and Stranby Rivers

Objective: General Recreation Resource Management

Timber:

Description: lowlands of generally poor productivity; only a small fraction of the forested area is classified as operable, mainly along Stranby, Nahwitti Rivers and around lakes

Objective: General Timber Resource Management

Tourism Resources:

Description: areas in vicinity of lakes and rivers exhibit high capability for tourism (backcountry, as well as facility oriented)

Objective: General Tourism Management

Visual Resources:

Description: visually sensitive areas mainly associated with lakes (Nahwitti, Georgie, Kains Lake)

Objective: General Visual Resource Management

Water:

Description: due to mostly gentle terrain and limited development history, there is generally high hydrological integrity; large area extending from Kains Lake along Tsulquate River is designated as(Port Hardy) community watershed; known risk of flooding in lower Quatse (vicinity of Port Hardy).

Objectives: General Watershed Management

Wildlife:

Description: intermediate to high wildlife values (particularly ungulate winter range, marbled murrelets) associated with river and lake systems; complex wetland ecosystems and old red cedar in Fort Rupert area; (unselected Protected Area Strategy Goal 2 Area)

Objective: General Wildlife Management

Strategies: maintain elk, winter ranges and marbled murrelet wildlife habitat areas in association with riparian management areas along rivers and lakes

Non-Forest Resource Descriptions

Aquaculture:

Description: significant values for freshwater finfish culture

Mineral Resources:

Description: moderate to high metallic mineral potential, low industrial mineral potential, many mineral tenures.

RMZ-7: Marble

Location: zone extending south from Rupert Inlet, comprising Alice and Victoria Lakes and area of upper Benson, Raging and Three Lakes Creek drainages

Total Area: approximately 61,200 ha

Zone Category and Overall Management Direction: General Management Zone, particularly suited for enhanced silviculture in second growth stands; high fisheries values, wildlife values/capability, as well as ecosystem representation and connectivity functions result in intermediate biodiversity significance; integration of recreational values associated with lakes

Forest Objectives and Strategies

Access:

Objective: General Access Management

Biodiversity:

Description: this zone is comprised by the Marble draft landscape unit; CWHvm1 and vm2 are main variants and underrepresented in protected areas; potential for regional connectivity function; areas of older forest are concentrated in vm2 south of Victoria Lake (Teihsum) and along Three Lakes Creek

Objective: General Biodiversity Conservation Management

Strategies: if necessary to avoid severe social and economic consequences, consider harvesting in CWHvm1 old forests below seral target (draw-down to no less than two thirds of target), subject to identification of ecologically suitable second growth in vm1 for long-term recovery of old forest attributes; maintain old seral forest in accordance with full target in CWHvm2, particularly in upper Teihsum, as well as upper reaches of Benson, incl. tributaries, for ungulate connectivity between Brooks-Nasparti and Tahsish-Kwois protected areas

Cave/Karst:

Description: cave/karst terrain and features along Benson and Raging systems and various known cave locations

Objective: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Fish:

Description: high anadromous values associated with Marble-Alice-Benson systems, intermediate values in Maynard Lake chain; high non-anadromous values in Victoria Lake

Objective: General Fish Management

Recreation Resources:

Description: recreational values associated with lakes and along Rupert Inlet

Objective: General Recreation Resource Management with emphasis on above areas

Timber:

Description: highly productive ground; over 2/3 of the forest cover is in second growth

Objective: General Timber Resource Management, with Enhanced Silviculture in suitable second growth forests;

Strategies: Enhanced Timber Harvesting opportunities may be identified at landscape level planning

Tourism Resources:

Description: high capability for coastal, lakes, rivers and facility-oriented tourism; caving potential

Objective: General Tourism Management

Visual Resources:

Description: few areas of sensitivity identified: north end of Alice Lake, west shore of Victoria Lake, Rupert Inlet

Objective: General Visual Resource Management

Water:

Description: lakes; extensive development in lower elevations

Objective: General Watershed Management

Wildlife:
Description: intermediate to high (upper Benson) wildlife values, high ungulate capability
Objective: General Wildlife Management
Strategies: maintain ungulate winter ranges and manage identified deer habitat in second growth forests

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited moderate potential for coastal finfish culture, some good shellfish culture potential

Mineral Resources:
Description: moderate to high metallic and industrial mineral potential; many mineral tenures.

RMZ-9: Klaskish

Location: Small zone comprising largely undeveloped Klaskish and East Creek drainages

Total Area: approximately 11,000 ha

Zone Category and Overall Management Direction: General Management Zone with high biodiversity and timber values; old seral forest should be retained in areas of high significance for fish and wildlife (e.g. marbled murrelet); maintain opportunities for timber resource management

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is comprised by the Klaskish draft landscape unit, which also encompasses parts of SMZ 3 and Brooks protected area; high old growth biodiversity values
Objective: Higher Biodiversity Conservation Management

Cave/Karst :
Description: occurrence of cave/karst terrain in lower watershed and peninsula
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high fish values
Objective: General Fish Management

Recreation Resources:
Description: mainly associated with coast (SMZ 3)
Objective: General Recreation Resource Management

Timber:
Description: moderate to high productivity in lower elevations; high existing timber values (almost all mature forest)
Objective: General Timber Resource Management

Tourism Resources:
Description: high capability for backcountry and coastal tourism
Objective: General Tourism Management

Visual Resources
Description: associated with coast, almost entirely within SMZ 3
Objective: General Visual Resource Management

Water:
Description: pockets of sensitive terrain; undeveloped watersheds
Objective: General Watershed Management

Wildlife:
Description: moderate to high wildlife values (elk, marbled murrelet and other old growth associated/ dependent species)
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for coastal finfish culture, shellfish culture potential unknown (values are entirely in SMZ 3)

Mineral Resources:
Description: Moderate to moderately high metallic mineral potential; high industrial mineral potential; some mineral tenures.

RMZ-12: Malcolm

Location: Malcolm Island

Total Area: approximately 8,300 ha

Zone Category and Overall Management Direction: General Management Zone, with general timber resource management and general integration of non-timber resource values

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is comprised by the Malcolm draft landscape unit, which exhibits generally lower biodiversity values
Objective: Basic Biodiversity Conservation Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: generally lower fish values
Objective: General Fish Management

Recreation Resources:
Description: associated with coastline
Objective: General Recreation Resource Management

Timber:
Description: generally lower to moderate productivity, approximately 30% of forest cover mature (estimated at 10% of operable); clay layers and deer browse present management challenges; local community forest initiative potential for rehabilitation/melioration of forest soils/sites
Objective: General Timber Resource Management

Tourism Resources:
Description: some established facilities; high potential for marine and heritage tourism
Objective: General Tourism Management

Visual Resources:
Description: visually sensitive coastline
Objective: General Visual Resource Management

Water:
Description: generally stable terrain, lower equivalent clearcut area
Objective: General Watershed Management

Wildlife:
Description: lower values
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:
Description: moderate for coastal finfish and limited for shellfish culture on southern coastline.

RMZ-13: Woss-Vernon

Location: zone bounded by Schoen-Strathcona SMZ (SMZ 11), Schoen Lake Park, Tsitika Woss SMZ (SMZ 9), Woss protected area, and forest district/TFL boundary; includes Woss and Vernon Lakes, and upper Nimpkish River watershed, including upper reaches of Oktwanch

Total Area: approximately 75,800 ha

Zone Category and Overall Management Direction: General Management Zone, significant timber resource values to be developed with due and active consideration and integration of significant wildlife, fish, biodiversity and recreation values; adaptive engineering/ deactivation efforts in areas of unstable terrain are indicated; specific opportunities for enhanced timber harvesting exist, and are to be identified at the local/landscape planning level

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is comprised by the Upper Nimpkish draft landscape unit, which also encompasses all or portions of Woss and Schoen Lake protected areas, as well as Tsitika Woss and Schoen-Strathcona SMZs; approximately 30% of the zone is in CWHxm2, along lower elevations in Nimpkish-Vernon and Davie-Klaklakama riparian systems
Objective: General Biodiversity Conservation Management
Strategies: focus of old seral forest retention should be in CWHxm2 associated with riparian reserves and management zones (see fish); refer also to SMZ 9

Cave/Karst:
Description: occurrence of cave/karst terrain and features between Vernon Lake and upper Nimpkish River
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high anadromous values associated with Nimpkish, Vernon, Davie and Klaklakama systems; also steelhead in McIvor and Sebalhall.

Objective: General Fish Management
Strategies: develop, at landscape level of planning, a long-term recovery plan for riparian management area, with provisions for maintenance/recovery of old growth attributes along Nimpkish-Vernon and Davie-Klaklakama riparian systems (this will capture additional CWHxm2 representation- see biodiversity)

Recreation Resources:
Description: significant values associated with Nimpkish River, Vernon and Klaklakama Lakes
Objective: General Recreation Resource Management with emphasis in above areas

Timber:
Description: highly productive, except for higher elevations (e.g. Sutton Range); approximately 50% in old forests, concentrated in higher elevations; remainder in second growth up to approximately 50 years old
Objective: General Timber Resource Management, with opportunity for Enhanced Silviculture
Strategies: specific opportunities for Enhanced Timber Harvesting are to be identified through landscape level planning

Tourism Resources:
Description: backcountry and facility-oriented tourism opportunities west of Vernon Lake
Objective: General Tourism Management

Visual Resources:
Description: few areas associated with Vernon and Klaklakama Lakes
Objective: General Visual Resource Management with emphasis in above areas

Water:
Description: sensitive terrain south and west of Vernon Lake; equivalent clearcut area monitoring indicated
Objective: General Watershed Management

Wildlife:
Description: high wildlife values: ungulate winter ranges, northern goshawk and marbled murrelets
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Agriculture:
Description: zone contains pockets of high capability non-ALR lands

Mineral Resources:
Description: Moderate metallic mineral potential; moderate industrial mineral potential; some mineral tenures.

RMZ-14: Kashutl

Location: coastal zone along Kyuquot Sound, between South Brooks-Bunsby SMZ and Tahsish-Kwois protected area; includes Union and other islands in Kyuquot Sound

Total Area: approximately 39,100 ha

Zone Category and Overall Management Direction: General Management Zone for integrated resource management, with emphasis on integration of timber values with scenic values along coast, as well as cultural heritage values

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is part of the Kashutl draft landscape unit; CWH vh1, vm1 and vm2 are the main variants and well represented in protected areas; approximately 40% old forest
Objective: Basic Biodiversity Conservation Management
Strategies: consider retaining more than one third of the old seral target if necessary to accommodate critical marbled murrelet habitat requirements, as well as ungulate connectivity between Brooks-Nasparti and Tahsish-Kwois protected areas

Cave/Karst:
Description: dispersed pockets of cave/karst
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Description: high known values
Objective: General Cultural Heritage Resource Management

Fish:
Description: intermediate; anadromous in lower Kauwinch, Kashutl
Objective: General Fish Management

Recreation Resources:
Description: values associated with shoreline
Objective: General Recreation Resource Management

Timber:
Description: generally lower to moderate productivity, with pockets of higher productivity; over 50% of forest cover in mature, with second growth concentrated along rivers in lower elevations
Objective: General Timber Resource Management

Strategies: limited opportunities for Enhanced Timber Harvesting and Enhanced Silviculture exist and should be identified at landscape level of planning

Tourism Resources:

Description: high capability for backcountry, coastal and facility-oriented tourism

Objective: General Tourism Management

Visual Resources:

Description: extensive visually sensitive areas along coastline

Objective: General Visual Resource Management with emphasis on areas visible from coastal waters

Water:

Description: indication of unstable terrain segments; some drainages with high equivalent clearcut area (Kashutl, Kauwinch, Malksope)

Objective: General Watershed Management

Strategies: monitoring of hydrological indicators

Wildlife:

Description: intermediate values; ungulate winter ranges, marbled murrelets

Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:

Description: abundant areas of good potential for coastal finfish and shellfish culture; some existing operations

Mineral Resources:

Description: Moderate metallic mineral potential; moderate industrial mineral potential; some mineral tenures.

RMZ-16: Zeballos

Location: comprises Zeballos River and Heh Creek community watersheds, as well as Nomash River drainage

Total Area: approximately 14,400 ha

Zone Category and Overall Management Direction: General Management Zone, with lower biodiversity conservation objectives; sensitive development of timber values on unstable terrain

Forest Objectives and Strategies

Access:

Objective: General Access Management

Biodiversity:

Description: this zone is part of the Zeballos draft landscape unit, which also encompasses part of the Woss- Zeballos SMZ; lower representation and wildlife values

Objective: Basic Biodiversity Conservation Management

Cave/Karst:

Description: dispersed pockets of cave/karst along Zeballos and Nomash Rivers

Objective and Strategies: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Fish:

Description: moderate, anadromous values in Zeballos system

Objective: General Fish Management

Recreation Resources:

Description: river based recreation

Objective: General Recreation Resource Management

Timber:

Description: generally high productivity along river valleys; over 2/3 of forest cover is mature

Objective: General Timber Resource Management

Strategies: limited opportunities for Enhanced Timber Harvesting may be identified at landscape level planning

Tourism Resources:

Description: localized tourism opportunities and services (Village of Zeballos)

Objective: General Tourism Management

Visual Resources:

Description: scenic values in vicinity of Village of Zeballos and along travel corridors

Objective: General Visual Resource Management

Water:

Description: known risk of flooding in lower reaches of Zeballos River; sensitive slopes and unstable terrain throughout; generally low equivalent clearcut area

Objective: General Watershed Management

Wildlife:

Description: lower values, but marbled murrelet detections high in the Nomash, and small elk herd

Objective: General Wildlife Management

Non-Forest Resource Descriptions

Mineral Resources:

Description: High metallic mineral potential; moderate industrial mineral potential and many mineral tenures.

RMZ-17: Artlish-Kaouk

Location: Artlish and Kaouk River watershed

Total Area: approximately 39,400 ha

Zone Category and Overall Management Direction: General Management Zone, with significant fish, wildlife, biodiversity values, as well as high amounts of mature timber; integration of visual and recreation values

Forest Objectives and Strategies

Access:

Objective: General Access Management

Biodiversity:

Description: this zone is comprised by the Artlish and Kaouk draft landscape units; significant old growth and wildlife habitat values

Objective: General Biodiversity Conservation Management

Cave/Karst:

Description: karst in upper Artlish watershed

Objectives and strategies: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Fish:

Description: High anadromous values in Artlish, Kaouk and Narrowgut systems

Objective: General Fish Management

Recreation Resources:

Description: values associated with coastline and lower Artlish and Kaouk Rivers (Artlish River Spruce Flats); access to Tahsish Inlet

Objective: General Recreation Resource Management

Strategies: maintain values associated with Artlish riparian system; consider establishment of recreation trail/site under FPC (mouth of Artlish and along riparian corridor)

Timber:

Description: moderate productivity, higher along rivers; over 2/3 in mature forests

Objective: General Timber Resource Management

Tourism Resources:

Description: high capability for coastal tourism; kayaking from bases in Fair Harbour

Objective: General Tourism Management

Visual Resources:

Description: sensitive coastline

Objective: General Visual Resource Management

Water:

Description: sensitive terrain; generally low equivalent clearcut area

Objective: General Watershed Management

Wildlife:

Description: moderate to high values, ungulate winter ranges, marbled murrelets

Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:

Description: abundant areas of good potential for coastal finfish and shellfish culture; some existing operations

Mineral Resources:

Description: Moderate metallic mineral potential; high industrial mineral potential; some mineral tenures.

RMZ-20: Nootka

Location: Nootka Island outside SMZ (SMZ 12) boundaries, as well as Bligh Island

Total Area: approximately 36,100 ha

Zone Category and Overall Management Direction: General Management Zone, with high priority for maintaining the significant visual, recreation and tourism resource values; integrated timber harvesting and second growth management practices; general biodiversity conservation; adaptive road engineering/ deactivation efforts are indicated to maintain terrain and watershed integrity

Forest Objectives and Strategies

Access:

Objective: General Access Management

Biodiversity:

Description: this zone is comprised by the Nootka draft landscape unit, which also contains Special Management Zone 12

Objective: General Biodiversity Conservation Management

Cave/Karst:

Description: dispersed pockets of cave/karst

Objective: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Fish:

Description: anadromous values in Laurie Creek/Ewart Lake system, as well as other smaller creeks

Objective: General Fish Management

Recreation Resources:

Description: associated with coast, as well as Ewart and Crawfish Lakes

Objective: General Recreation Resource Management with emphasis on above areas

Timber:

Description: generally lower to moderate productivity, with higher productivity in lower elevations of Beano Creek area; over 2/3 of forest cover is mature

Objective: General Timber Resource Management

Tourism Resources:

Description: significant coastal tourism opportunities; nearby facilities at Yuquot, Nootka Cannery and Bligh Island

Objective: General Recreation Resource Management

Visual Resources:

Description: visually sensitive areas all along coastline

Objective: General Visual Resource Management

Water:

Description: unstable terrain throughout

Objective: General Watershed Management

Wildlife:

Description: overall moderate values, potential marbled murrelet habitat (higher values in SMZ12)

Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:

Description: abundant areas of moderate potential for coastal finfish and limited areas of good to moderate potential for shellfish culture; some existing operations

Mineral Resources:

Description: Moderately high metallic and industrial mineral potential; some mineral tenures.

RMZ-22: Gold

Location: zone including Gold, Muchalat, lower Oktwanch and Heber drainages

Total Area: approximately 67,100 ha

Zone Category and Overall Management Direction: General Management Zone, with high fish, wildlife and biodiversity values, as well as significant timber values; landscape level development of riparian recovery plan for the Gold-Muchalat-Oktwanch-Nimpkish riparian corridor recommended

Forest Objectives and Strategies

Access:

Objective: General Access Management

Biodiversity:

Description: this zone is comprised by the Gold draft landscape unit, which also contains Gold-Muchalat protected area, and portions of Strathcona Park, as well as part of the Schoen-Strathcona SMZ; high diversity of ecosystems, including regionally significant portions of CWH xm2 in lower Gold and Oktwanch drainages; high old growth values

Objective: Higher Biodiversity Conservation Management

Strategies: use protected areas to meet old seral stage targets to the extent possible; focus of old seral retention outside of protected areas should be in SMZ portion, ungulate and marbled murrelet habitat, as well as CWHxm2 associated with riparian reserves (see fish objective)

Cave/Karst:

Description: dispersed pockets of cave/karst

Objective and strategies: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Fish:

Description: high fish values in Gold and Muchalat systems

Objective: General Fish Management
Strategies: prepare long-term recovery plan of riparian reserve and management zone with old growth attributes in lower Gold/Muchalat Lake/Oktwanch system at landscape level planning process

Recreation Resources:
Description: significant values in Muchalat Lake and lower Gold River area, as well as alpine setting between upper Muchalat and upper Conuma drainages
Objective: General Recreation Resource Management with emphasis on above areas

Timber:
Description: areas of very high productivity distinctly confined to lower elevations along rivers; second growth forests in lower elevations, over 60% of mature timber remaining, most in higher elevations
Objective: General Timber Resource Management with opportunities for Enhanced Silviculture
Strategies: opportunities for Enhanced Timber Harvesting may be identified at landscape level planning

Tourism Resources:
Description: site specific opportunities in areas described under visual and recreation resources
Objective: General Tourism Management

Visual Resources:
Description: visually sensitive areas concentrated around Muchalat Lake and Village of Gold River, as well as along travel corridors
Objective: General Visual Resource Management

Water:
Description: sensitive terrain on steeper slopes; generally low equivalent clearcut area
Objective: General Watershed Management

Wildlife:
Description: high wildlife values, including ungulate-large carnivore populations; marbled murrelet detections in upper Gold River
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Mineral Resources:
Description: Moderately high metallic mineral potential; moderate industrial mineral potential; some mineral tenures.

RMZ-25: Escalante

Location: extending from Escalante Point and River along Zuciarte Channel to Mooyah River and Mount Rufus

Total Area: approximately 15,400 ha

Zone Category and Overall Management Direction: General Management Zone, with high coastal visual/recreation/tourism values; integration of wildlife values; objectives for biodiversity are to be integrated at the basic stewardship level in accordance with FPC requirements; limited opportunities for enhanced timber harvesting may be identified at landscape level planning

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is comprised by the Escalante draft landscape unit; CWH vm1 and vm2 are the dominant ecosystems
Objective: Basic Biodiversity Conservation Management

Cave/Karst:
Description: dispersed pockets of cave/karst
Objective and strategies: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: anadromous values in lower reaches of streams
Objective: General Fish Management

Recreation Resources:
Description: coastal setting along Zuciarte Channel and King Passage
Objective: General Recreation Resource Management

Timber:
Description: moderate productivity; approximately 2/3 in mature forests
Objective: General Timber Resource Management
Strategies: limited opportunities for Enhanced Timber Harvesting exist and should be identified at landscape level of planning

Tourism Resources:
Description: site specific coastal opportunities
Objective: General Tourism Management

Visual Resources:
Description: sensitive viewsheds along coastline
Objective: General Visual Resource Management with emphasis along coast

Water:
Description: unstable terrain
Objective: General Watershed Management with emphasis on restoration of watershed integrity

Wildlife:
Description: intermediate wildlife values, marbled murrelets
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:
Description: some areas of moderate potential for coastal finfish and limited area of good potential for shellfish culture

Mineral Resources:
Description: Moderate to moderately-high metallic mineral potential; moderate industrial mineral potential; no mineral tenures.

RMZ-26: Tsitika

Location: Tsitika River watershed outside protected areas and SMZ 8 and 9

Total Area: approximately 27,200 ha

Zone Category and Overall Management Direction: General Management Zone, with maintenance of high wildlife, fish and biodiversity values, and integrated management for timber and other resources

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is part of the Tsitika draft landscape unit, which also encompasses the Tsitika protected area, as well as SMZ 8 and portions of SMZ 9; high biodiversity values associated with Tsitika riparian system and old forests; CWHvm1 and vm2 are underrepresented variants in this ecosection
Objective: Higher Biodiversity Conservation Management
Strategies: concentrate old seral forest in SMZ portions of the draft LU (see biodiversity objectives for SMZ 8 and 9), as well as where required within the zone for conservation of marbled murrelet and other wildlife habitat

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high anadromous values in the Tsitika system
Objective: General Fish Management

Recreation Resources:
Description: associated with Tsitika River
Objective: General Recreation Resource Management

Timber:
Description: highly productive along lower elevations; very high proportion of mature forests
Objective: General Timber Resource Management

Tourism Resources:
Description: backcountry opportunities concentrated in lower Tsitika and SMZ 8
Objective: General Tourism Management

Visual Resources:
Description: along highway corridor
Objective: General Visual Resource Management with emphasis along highway corridor

Water:
Description: sensitive terrain throughout; generally low equivalent clearcut area
Objective: General Watershed Management

Wildlife:
Description: high values, ungulate winter range along Tsitika river; marbled murrelet and northern goshawk detections
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Mineral Resources:
Description: Moderate metallic mineral potential; moderate industrial mineral potential; some mineral tenures.

RMZ-29: White

Location: comprises most of White River watershed; bounded by Schoen-Strathcona SMZ in upper watershed.

Total Area: approximately 27,700 ha

Zone Category and Overall Management Direction: General Management Zone, integration of high fish, wildlife and biodiversity values with significant timber values

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is part of the White draft landscape unit, which also encompasses portions of the Schoen-Strathcona SMZ; mainly CWHvm1 and vm2, which are moderately underrepresented; high wildlife values; high proportion of old forests
Objective: Higher Biodiversity Conservation Management
Strategies: concentrate old seral forest in SMZ portion, as well as where required for ungulate and other wildlife habitat

Cave/Karst:
Description: known karst occurrence
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high anadromous fish values in White system
Objective: General Fish Management

Recreation Resources:
Description: salmon viewing, and old growth values in upper White; karst
Objective: General Recreation Resource Management

Timber:
Description: moderate to high productivity in lower elevations; approximately two thirds in mature forest cover
Objective: General Timber Resource Management

Tourism Resources:
Description: backcountry activity values
Objectives and strategies: General Tourism Management

Visual Resources:
Description: generally not sensitive or significant
Objective: General Visual Resource Management

Water:
Description: some sensitive terrain, generally low equivalent clearcut area concern; lower reaches of Salmon River in an area of existing settlement (Sayward) where there is a known risk of flooding
Objective: General Watershed Management

Wildlife:
Description: high values, ungulate winter range
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Mineral Resources:
Description: Moderate metallic and industrial mineral potential; some mineral tenures.

RMZ-31: Sayward

Location: area bounded by Johnstone Strait, Discovery Passage, E&N private land and Salmon watershed; includes Paterson Lake

Total Area: approximately 90,300 ha

Zone Category and Overall Management Direction: General Management Zone, with focus on integration of high second growth timber values with significant fish and wildlife values, as well as visual/recreation and tourism values; biodiversity management with focus on long term replacement of old seral forest attributes in CWHxm1 and xm2 through active silvicultural measures; specific opportunities for enhanced harvesting and second growth management with enhanced silviculture practices, including commercial thinning treatments which exist and should be identified at landscape level of planning

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is comprised by the Sayward draft landscape unit; CWHxm1/2 are dominant variants and regionally underrepresented, but less than 5% is in old seral forest condition

Objective: General Biodiversity Conservation Management
Strategies: retain existing old seral forest in xm1 and xm2, and replace old seral forest attributes in the long term (>150 years) through active application of silvicultural practices, incl. alternative silvicultural systems; old forest recruitment growth management areas should be well distributed in second growth, including early seral forest; mature forest attributes should be recovered in the mid-term (>50 years)

Cave/Karst:
Description: cave/karst in Paterson and Campbell Lake areas
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high fish values associated with lakes, as well as anadromous values in lower reaches of streams
Objective: General Fish Management

Recreation Resources:
Description: high values associated with lakes, particularly Sayward Canoe Route, as well as coastal shoreline along Johnstone Strait; subalpine setting in Prince of Wales Range
Objective: General Recreation Resource Management

Timber:
Description: generally high productivity, with pockets of lower productivity; almost entirely in second growth timber
Objective: General Timber Resource Management
Strategies: specific opportunities for Enhanced Timber Harvesting and second growth management with Enhanced Silviculture practices, incl. commercial thinning treatments which exist and should be identified at landscape level of planning; focus should be on application of partial cutting silviculture systems where practical and where indicated to integrate non-timber values

Tourism Resources:
Description: outdoor activity areas associated with highway corridor, lakes, shoreline, high levels of dispersed-type use
Objective: General Tourism Management

Visual Resources:
Description: extensive visually sensitive areas associated with lakeshores, highway, and marine corridors along Johnstone Strait and Discovery Passage
Objective: General Visual Resource Management
Strategies: fully explore and apply opportunities for partial cutting alternative harvesting/ silvicultural systems

Water:
Description: many lakes; generally stable terrain and low equivalent clearcut area
Objective: General Watershed Management

Wildlife:
Description: high wildlife values, particularly ungulate winter range
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:
Description: some areas of moderate potential for coastal shellfish culture

Mineral Resources:
Description: Moderate metallic mineral potential; moderately high industrial mineral potential; no mineral tenures.

RMZ-32: Quadra-Cortes

Location: Northern tip of Quadra Island (outside of SMZ 19), Cortes, Read and Maurelle islands

Total Area: approximately 19,200 ha

Zone Category and Overall Management Direction: General Management Zone, with significant recreation/scenery and tourism values and intermediate significance for biodiversity conservation; forest management practices should be adapted in design and scale to fit the nature, scale and sensitivities of the northern Gulf Island/ southern Johnstone Strait environment

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is comprised by the Quadra draft landscape unit, which also encompasses the

Quadra SMZ, as well as the Cortes draft landscape unit; almost entirely CWHxm1 and xm2 which are regionally underrepresented; few remaining in old forests
Objective: General Biodiversity Conservation Management
Strategies: retain existing old seral forest in xm1 and xm2, and replace old seral forest attributes in the long term (>150 years) through active application of silvicultural practices, incl. alternative silvicultural systems; old growth management areas should be well distributed in second growth, including early seral forest; mature forest attributes should be recovered in the mid-term (>50 years)

Cave/Karst:
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: anadromous values
Objective: General Fish Management

Recreation Resources:
Description: values associated with land/marine interface
Objective: General Recreation Resource Management

Timber:
Description: lower to moderate productivity; almost entirely second growth timber
Objective: General Timber Resource Management
Strategies: forest management practices should be adapted to fit the nature, scale and sensitivities of the northern gulf island/ southern Johnstone Strait small island environment; application of the silvicultural system strategies listed under Special Timber Resource Management should be duly considered

Tourism Resources:
Description: high values, levels of use and opportunities associated with coast/marine
Objective: General Tourism Management

Visual Resources:
Description: highly visually sensitive coastline
Objective: General Visual Resource Management with high emphasis on coastline

Water:
Description: generally stable terrain, low equivalent clearcut area
Objective: General Watershed Management

Wildlife:
Description: lower to intermediate values associated with wetlands and coast/marine (marbled murrelet, bald eagle etc.)
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:
Description: abundant areas of good potential for coastal finfish and shellfish culture; many existing operations

Mineral Resources:
Description: High metallic mineral potential; moderate industrial mineral potential; some mineral tenures.

RMZ-33: E&N-North

Location: Northern portion of E&N belt within Campbell River Forest District (south to Fanny Bay); contains few, dispersed pockets of Crown provincial forest; the objectives/strategies apply to those Crown lands only

Total Area: approximately 1,500 ha

Zone Category and Overall Management Direction: General Management Zone, with second growth timber values and particular suitability for enhanced silviculture and growth and yield management; recreation/scenery and tourism opportunities associated with intensively managed, roaded resource lands; high fish and wildlife values; biodiversity conservation/restoration is recommended with an emphasis on retention, and where required, active restoration of mature and old seral forest attributes and age classes.

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is encompassed by the Quinsam, Simms, Oyster, Tsolum, Puntledge and Trent draft landscape units; CWH xm1 and xm2 ecosystems are underrepresented in protected areas, and old forests in these variants are rare
Objective: Basic Biodiversity Conservation Management
Strategies: generally maintain existing old seral forests; assess opportunities for practicality of

landscape level biodiversity conservation (i.e. old growth management areas); if landscape level biodiversity conservation is found to be not practical, recruit old seral forest elements mostly through stand level practices which promote old seral forest attributes, including retention of scattered veteran trees, wildlife tree patches, diversity of tree species and ages, and partial cutting silvicultural systems.

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high anadromous fisheries values
Objective: General Fish Management

Recreation Resources:
Description: generally high use and opportunities
Objective: General Recreation Resource Management

Timber:
Description: moderate to high productivity; almost entirely in second growth timber
Objective: General Timber Resource Management and opportunity for Enhanced Silviculture

Tourism Resources:
Description: facilities along coast
Objective: General Tourism Management

Visual Resources:
Description: generally lower sensitivity
Objective: General Visual Resource Management

Water:
Description: varying terrain stability, varying equivalent clearcut area; existing settlement areas with known risks of flooding
Objective: General Watershed Management

Wildlife:
Description: generally intermediate values
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Agriculture:
Description: contains pockets of high capability non-ALR lands, and significant for agricultural water needs

Mineral Resources:
Description: moderate to moderately high metallic mineral potential; moderate industrial mineral potential; high coal potential. Mineral and coal tenures.

RMZ-34: E&N South

Location: Southern portion of E&N belt from Fanny Bay south; contains dispersed pockets of Crown provincial forest; the objectives/strategies apply to those Crown lands only

Total Area: approximately 48,600 ha

Zone Category and Overall Management Direction: General Management Zone, with significant timber values and particular suitability for enhanced silviculture and growth and yield management on larger blocks of Crown provincial forest land; due to its proximity to population centres, the area offers significant recreation/scenery and tourism opportunities associated with intensively managed, roaded resource lands; fish and wildlife values are significant, and biodiversity conservation/ restoration is recommended with an emphasis on retention, and where required, active restoration of mature and old seral forest attributes and age classes.

Forest Objectives and Strategies

Access:
Objective: General Access Management

Cave/Karst:
Description: dispersed pockets of cave/karst potential, most notably in vicinity of Horne Lake
Objective: General Cave/Karst Management

Biodiversity:
Description: this zone is encompassed by the Rosewall, Little Qualicum, Somass, French Creek, Englishman, Nanoose, Millstone, Nanaimo, Chemainus, Cowichan, Koksilah, Sooke, Shawnigan, Victoria/Saanich and Metchosin draft landscape units; CDF mm in the Nanaimo Lowlands, as well as CWH xm1 and xm2 ecosystems are underrepresented in protected areas, and old forests in these variants are rare
Objective: General Biodiversity Conservation Management in the portions of the zone which are part of the Rosewall, Little Qualicum, Englishman, Nanaimo and Chemainus draft landscape units; Basic Biodiversity Conservation Management in the remainder of the zone
Strategies:
The following customized strategies are offered for consideration in the large blocks (generally >1000 ha) of Crown provincial forest:

- maintain existing old seral forest, as well as second growth with high portion of veteran trees; recruit old seral forest in the long term (>150 years) in accordance with old seral targets for intermediate BEO; focus of old seral recruitment should be in CDFmm, CWHxm1 and xm2, concentrated along riparian areas and, where possible, adjacent to existing old seral forest; recruit old seral habitat blocks with higher priority on forest interior conditions than on old seral connectivity; maintain harvest opportunity in second growth by identifying some old growth recruitment areas in early seral forest; recruit mature forest in the mid (>50 years) term, building gradually towards a mature target ranging from 8% in those portions of the zone with Basic Biodiversity Conservation, and 25% in portions with General Biodiversity Conservation; actively create mature and old seral forest attributes through suitable management strategies, such as variable density thinning and/or partial cut silvicultural systems

Strategies in the smaller blocks of provincial forest:

- generally maintain existing old seral forests and stand elements; assess opportunities for practicality of landscape level biodiversity conservation (i.e. old growth management areas) if landscape level biodiversity conservation is found to be not practical, recruit old seral forest elements mostly through stand level practices which promote old seral forest attributes, including retention of scattered veteran trees, wildlife tree patches, diversity of tree species and ages, and partial cutting silvicultural systems.

Community Water:
Description: several Community Watersheds
Objective: Community Watershed Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: intermediate to high fish values, particularly in Qualicum, Cameron, Englishman, Nanaimo and Cowichan systems
Objective: General Fish Management

Recreation Resources:
Description: significant values in Nanaimo River, Arrowsmith-Cameron, Horne Lake-Qualicum River areas, and in much of the southern portion of the zone due to proximity to urban centres
Objective: General Recreation Resource Management

Timber:
Description: high productivity, almost entirely in second growth timber, except for higher elevations;
Objective: General Timber Resource Management with opportunities for Enhanced Silviculture

Tourism Resources:
Description: numerous facilities along coast, and high potential in Cameron/Horne Lake-Alberni area, as well as in Cowichan Lake, Nanaimo Lakes and Ladysmith Harbour, and Sooke hinterland
Objective: General Tourism Management with emphasis in above areas

Visual Resources:
Description: associated with Mt. Benson, Mt. Arrowsmith, Cameron Lake and Mt. Schofield, as well as dispersed pockets associated with Cowichan and Shawnigan Lakes, and portions of Cowichan and Koksilah Rivers
Objective: General Visual Resource Management

Water:
Description: varying terrain stability, varying equivalent clearcut area; existing settlement areas with known risk of flooding
Objective: General Watershed Management

Wildlife:
Description: varying significance, generally moderate to high values in Cowichan, Koksilah; high values in Chemainus estuary, as well as in Qualicum, Cameron, China, Nanaimo systems
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Agriculture:
Description: contains pockets of high capability non-ALR lands; significant for agricultural water needs

Mineral Resources:
Description: low to moderately high potential for metallic minerals and coal; moderate industrial mineral potential; some mineral and coal tenures.

RMZ-35: Ash-Great Central-Sproat

Location: Upper Ash watershed, including Elsie, Ash and Dickson Lakes, as well as Great Central and Sproat Lake watersheds

Total Area: approximately 78,500 ha

Zone Category and Overall Management Direction: General Management Zone, with significant timber values and particular suitability for enhanced silviculture and growth and yield management; due to its proximity to population centres, the area offers significant recreation opportunities associated with intensively managed, roaded resource lands; wildlife, and particularly fish values are significant, and biodiversity conservation/restoration is recommended consistent with the intermediate level of significance with an emphasis on active restoration of mature and old seral attributes.

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is comprised by the Ash, Great Central and Sproat draft landscape units, which also encompass portions of Strathcona Park and Strathcona Taylor SMZ; CWH xm1 and xm2 extend over a large portion of the area, but are almost entirely in early and mid-seral forest
Objective: General Biodiversity Conservation Management
Strategies: actively recover mature and old seral forest attributes in the mid- to long term (50 to 150 years), with focus on areas in the CWHxm1/2 (capture areas of high fish, wildlife and recreation/scenery values as mature and old recruitment areas)

Cave/Karst:
Description: dispersed pockets of cave/karst south of Sproat Lake
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high fish values
Objective: General Fish Management

Recreation Resources:
Description: high recreation use and values throughout the area
Objective: General Recreation Resource Management

Timber:
Description: generally moderate to high productivity, most of the area in second growth timber, except in higher elevations south of Ash River, Mt. Bueby, Beaufort Range, and south shore portions of Great Central and Sproat Lakes
Objective: General Timber Resource Management, with particular opportunities for Enhanced Silviculture
Strategies: limited opportunities for Enhanced Timber Harvesting may be identified at the landscape planning level

Tourism Resources:
Description: high backcountry (roaded lands) and lake-based tourism capability throughout the area
Objectives and Strategies: General Tourism Management

Visual Resources:
Description: shorelines of Great Central and Sproat Lakes
Objective: General Visual Resource Management with emphasis along Great Central and Sproat Lakes

Community Water:
Description: the drainage area above Sproat River is designated community watershed
Objective: Community Watershed Management

Water:
Description: generally low equivalent clearcut area; Sproat Lake is a large non-designated community watershed; the Somass River is an area of existing settlement (Port Alberni) where there is a known risk of flooding
Objective: General Watershed Management

Wildlife:
Description: intermediate values, particularly ungulate winter range dispersed throughout; high habitat capability; high detections of marbled murrelets on south shore of Great Central Lake
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Agriculture:
Description: contains pockets of high capability non-ALR lands, and significant for agricultural water needs

Aquaculture:
Description: good potential for freshwater finfish and shellfish culture; one existing operation
Mineral Resources:
Description: moderate metallic and industrial mineral potential; some mineral tenures.

RMZ-37: Henderson

Location: Henderson Lake watershed

Total Area: approximately 23,100 ha

Zone Category and Overall Management Direction: General Management Zone, with high proportion of mature timber, to be developed with due concern for fish, hydrological and watershed integrity

Forest Objectives and Strategies

Access:
Objective: General Access Management
Biodiversity:
Description: this zone is comprised by the Henderson draft landscape unit, which also encompasses portions of the Barkley Sound SMZ; CWH vm1 is the dominant ecosystem type; basic representation values
Objective: Basic Biodiversity Conservation Management
Cave/Karst:
Description: dispersed pockets of cave/karst
Objective: General Cave/Karst Management
Cultural Heritage Resources:
Description: known cultural heritage/ spiritual values
Objective: General Cultural Heritage Resource Management
Fish:
Description: intermediate fish values, anadromous in lower stream reaches; significant sockeye run
Objective: General Fish Management
Recreation Resources:
Description: basic values associated with roaded access to managed forest land
Objective: General Recreation Resource Management
Timber:
Description: lower to moderate productivity, high proportion of mature timber
Objective: General Timber Resource Management
Strategies: consider identifying opportunities for aggregating cutblocks or enlarged openings (larger than 40 ha) to reduce road density and road-related hydrological hazards
Tourism Resources:
Description: capability for backcountry and coastal tourism
Objective: General Tourism Management
Visual Resources:
Description: along inlet
Objective: General Visual Resource Management with emphasis along inlet
Water:
Description: higher equivalent clearcut area in Cass Creek, Handy Creek drainages
Objective: General Watershed Management
Wildlife:
Description: intermediate values, dispersed pockets of ungulate winter range
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for coastal finfish or shellfish culture
Mineral Resources:
Description: moderate to moderately high potential for metallic and industrial minerals; some mineral tenures.

RMZ-39: Toquart

Location: Toquart River and Lakes drainage

Total Area: approximately 14,800 ha

Zone Category and Overall Management Direction: General Management Zone, with significant timber, as well as recreational and visual values; biodiversity conservation to the intermediate level of significance (retention targets: maximize overlap with areas of recreational and fish/wildlife values)

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is comprised by the Toquart draft landscape unit, which also encompasses portions of the Barkley Sound SMZ; high proportion of old forests; potential for connectivity function
Objective: General Biodiversity Conservation Management
Strategies: capture old seral forest in non-contributing areas, as well as areas of recreational and fish/wildlife values

Cave/Karst:
Description: dispersed pockets of cave/karst
Objective: General Cave/Karst Management

Community Water:
Description: Mack Creek is a designated community watershed (Toquaht Indian Band)
Objective: Community Watershed Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: high anadromous/resident values in Toquart system
Objective: General Fish Management

Recreation Resources:
Description: significant values and use associated with lakes, river, backcountry
Objective: General Recreation Resource Management

Timber:
Description: lower to moderate productivity, high proportion of mature timber
Objective: General Timber Resource Management
Strategies: limited opportunities for Enhanced Timber Harvesting may be identified at the landscape level of planning

Tourism Resources:
Description: key access to coastal areas; coastal capability along inlet, and backcountry values in upper Toquart drainage
Objective: General Tourism Management

Visual Resources:
Description: associated with lakes and Mackenzie Range
Objective: General Visual Resource Management

Water:
Description: low equivalent clearcut area
Objective: General Watershed Management

Wildlife:
Description: intermediate values, ungulate winter range, coastal/marine
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for coastal finfish or good potential for shellfish culture

Mineral Resources:
Description: moderately high potential for metallic and industrial minerals; many mineral tenures.

RMZ-41: Cameron-China

Location: Cameron and China Creek; both are community watersheds

Total Area: approximately 20,400 ha

Zone Category and Overall Management Direction: General Management Zone, with particular emphasis on maintaining watershed integrity, as well fish, wildlife and recreational values

Forest Objectives and Strategies

Access:
Objective: General Access Management

Biodiversity:
Description: this zone is part of the Cameron and China draft landscape units; CWHxm2 is the largest ecosystem type
Objective: General Biodiversity Conservation Management

Cave/Karst:
Description: dispersed pockets of cave/karst
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Fish:
Description: anadromous values
Objective: General Fish Management

Recreation Resources:
Description: lake-based values, vicinity to Port Alberni
Objective: General Recreation Resource Management

Timber:
Description: highly productive, with majority in second growth timber, and blocks of mature remaining in higher elevations and at back end of drainages
Objective: General Timber Resource Management
Tourism Resources:
Description: backcountry (roaded lands) capability and use
Objectives: General Tourism Management
Visual Resources:
Description: associated with Cameron Lake
Objective: General Visual Resource Management with emphasis around Cameron Lake
Community Water:
Description: entire zone is designated as community watershed
Objective: Community Watershed Management
Wildlife:
Description: intermediate values - dispersed pockets of ungulate winter range; Vancouver Island Marmot habitat; northern goshawk
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Agriculture:
Description: contains pockets of high capability non-ALR lands
Aquaculture:
Description: very limited potential for coastal finfish or shellfish culture
Mineral Resources:
Description: low to moderately high metallic mineral potential; moderately high industrial mineral potential; some tenures in the northeastern part of the area.

RMZ-45: Nitinat

Location: Nitinat watershed including Nitinat Lake, bounded by E&N and TFL 44 boundaries

Total Area: approximately 43,700 ha

Zone Category and Overall Management Direction: General Management Zone, with particular opportunity and suitability for enhanced silviculture and increased growth and yield; wildlife values require heightened management attention; significant recreation, tourism and scenic values, as well as known cultural heritage values.

Forest Objectives and Strategies

Access:
Objective: General Access Management
Biodiversity:
Description: this zone is comprised by the Nitinat draft landscape unit; high ecosystem diversity
Objective: General Biodiversity Conservation Management
Strategies: old seral retention areas, if required within the contributing portion of the zone, should try and capture old seral forest with important wildlife habitat attributes (see under wildlife)
Cave/Karst:
Description: dispersed pockets of cave/karst
Objective: General Cave/Karst Management
Cultural Heritage Resources:
Description: known spiritual values in Mount Rosander area
Objective: General Cultural Heritage Management
Fish:
Description: high values associated with Nitinat system; resident/lake values
Objective: General Fish Management
Recreation Resources:
Description: associated with Francis Lake, Nitinat and Doobah/Sprise Lakes, and Nitinat-Cowichan corridor
Objective: General Recreation Resource Management with emphasis on above areas
Timber:
Description: highly productive, almost entirely in second growth timber, except for high elevations
Objective: General Timber Resource Management, with significant opportunity for Enhanced Silviculture in upper watershed
Strategies: opportunities for Enhanced Timber Harvesting in second growth should be identified through landscape level planning
Tourism Resources:
Description: significant existing use, capability for backcountry and facility-based tourism
Objective: General Tourism Management
Visual Resources:
Description: associated with Francis Lake and Flora Lake, along Nitinat Lake, Mt. Rosander and Carmanah Mountain

Objective: General Visual Resource Management with emphasis on above areas
Water:
Description: generally low equivalent clearcut area
Objective: General Watershed Management
Wildlife:
Description: intermediate; ungulate winter range, northern goshawk detections; high wildlife capability
Objective: General Wildlife Management
Strategies: manage second growth to create old growth attributes, where practical.

Non-Forest Resource Descriptions

Mineral Resources:
Description: moderate to moderately high metallic mineral potential; moderately high industrial mineral potential; some mineral tenures.

RMZ-46: Gordon-Caycuse-San Juan

Location: Gordon, Caycuse and San Juan River watersheds, including portions of Walbran outside of park and SMZ

Total Area: approximately 78,400 ha

Zone Category and Overall Management Direction: General Management Zone, significant timber values combined with high fish, wildlife and biodiversity values, as well as recreation values

Forest Objectives and Strategies

Access:
Objective: General Access Management
Biodiversity:
Description: this zone is comprised by the Caycuse, Walbran, Gordon and San Juan draft landscape units; moderate representation values, but high ecosystem complexity and capability
Objective: General Biodiversity Conservation Management
Cave/Karst:
Description: dispersed pockets of cave/karst
Objective: General Cave/Karst Management
Community Water:
Description: Malachan Creek (Dididaht Indian Band) is a designated community watershed
Objective: Community Watershed Management
Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management
Fish:
Description: high fish values, anadromous in Gordon, lower Caycuse, San Juan and Harris systems
Objective: General Fish Management
Strategies: restoration of upslope areas (gullies, roads, slides, and streams), as well as riparian management areas is indicated
Recreation Resources:
Description: associated with Gordon and lower Caycuse River, as well as San Juan River and trail; high use in proximity to urban areas
Objective: General Recreation Resource Management
Timber:
Description: highly productive, with majority of forest cover in second growth timber
Objective: General Timber Resource Management, with particular opportunity for Enhanced Silviculture
Strategies: opportunities for Enhanced Timber Harvesting in second growth should be identified through landscape level planning
Tourism Resources:
Description: important access to West Coast, coastal, river and backcountry values
Objective: General Tourism Management
Visual Resources:
Description: around McClure Lake, Fairy Lake; otherwise no regionally significant values
Objective: General Visual Resource Management
Water:
Description: some drainages exhibit higher equivalent clearcut area; lower reaches of San Juan River is an area of existing settlement (Port Renfrew) where there is a known risk of flooding
Objective: General Watershed Management
Wildlife:
Description: intermediate (Gordon) to high values, ungulate winter range throughout; northern goshawk and marbled murrelet detections; high habitat capability
Objective: General Wildlife Management

Non-Forest Resource Descriptions

Mineral Resources:
Description: moderate to high metallic mineral potential; moderate industrial mineral potential; many mineral tenures.

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

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4.3.3 Enhanced Forestry Zone RMZ

Intent

The intent of the Enhanced Forestry Zone (EFZ) is to identify forested lands which are suitable for increased timber production. This will be achieved through both enhanced timber harvesting, as well as the promotion of enhanced silviculture practices, such as intensive reforestation, spacing, pruning, thinning and innovative harvest practices. The enhanced forest management objectives in the EFZ are intended to result in timber supply benefits which - at a minimum, and across entire TSAs and TFLs - would offset the additional timber supply impacts associated with management in the Special Management Zone.

EFZ units have been identified based on an assessment of the inter-relationship and significance of timber and non-timber resource values, and based on regional scale resource information. They are located in areas with particular suitability and capability for enhanced timber production, which also avoid areas of particularly high non-timber values, such as community watersheds or high biodiversity emphasis areas.

All legislated environmental stewardship provisions under the FPC and other legislation apply in EFZ units. Enhancement of the timber resource is not intended to be at the expense of significant non-timber resource values.

The 22 EFZ areas identified on **Map 8** cover 808,222 ha (24% of the Island). However the amount of land that will actually be suitable for enhanced timber harvesting after the completion of more detailed operational plans under the FPC will be less, depending on operability and non-timber resource constraints.

Table 8: Management Regimes for Individual EFZ Units

(**BOLD** denotes primary regimes)

	RMZ Units	TIM	WAT	FISH	WL	BIO	VIS	REC	TOU	C/K	CULT HER	ACC
4	**San Josef-Koprino**	**E**	G	**G**	G	**G**	G	G	G	G	G	G
5	Holberg	**E**	**CW**/G	**G**	G	B	G	G	G	G	G	G
6	**Keogh-Cluxewe**	**ES/ETH**		**G**	G	G	**B**	G	G	**G**	G	G
8	Mahatta-Neuroutsos	**E**	G	**G**	**G**	B	G	G	G	G	G	G
10	**Nimpkish**	**E**	G	**G**	**G**	**B**	G	G	G	G	G	G
11	Bonanza	**ES/ETH**	G	**G**	**G**	**G**	G	G	G	G	G	G
15	**Tahsish**	**E**	G	**G**	G	**G**	G	G	G	G	G	G
18	Eliza	**E**	**CW**/G	**G**	G	B	**G**	G	G		G	G
19	**Tahsis**	**E**	**CW**/G	**G**	G	B	**G**	G	G	G	G	G
21	Tlupana	**E**	G	**G**	**G**	**G**	G	G	G	G	G	G
23	**Kleeptee**	**E**	G	**G**	**G**	B	G	G	G		G	G
24	Burman	**ES/ETH**	G	**G**	**G**	B	G	G	G	G	G	G
27	**Naka**	**ES/ETH**	G	**G**	G	B	**G**	G	G		G	G
28	Adam and Eve	**E**	G	**G**	**G**	**B**	G	G	G	G	G	G
30	**Salmon**	**E**	**CW/G**	**G**	**G**	**B**	G	G	G	G	G	G
36	Cous	**ES/ETH**	G	**G**	G	B	**G**	G	G	G	G	G
38	**Effingham**	**ETH/ES**	G	**G**	G	**G**	G	G	G	G	G	G
40	Maggie	**ES/ETH**	**CW**/G	**G**	G	B	**G**	G	G	G	G	G
42	**Corrigan**	**ES/ETH**	**CW/G**	**G**	**G**	**G**	G	G	G	G	G	G
43	Sarita	**ES/ETH**	**CW**/G	**G**	**G**	B	G	G	G	G	G	G
44	**Klanawa**	**E**	G	**G**	**G**	**G**	G	G	G		G	G
47	Loss-Jordan	**E**	G	**G**	G	B	**G**	**G**	G		G	G

Note: Cave/Karst management is limited to those RMZs with known features or high probability of such occurrence

TIM: Timber; **BIO** Biodiversity; **C/K** Cave Karst; **WAT** Water; **VIS** Visual; **CULT.HER** Cultural Heritage; **FISH** Fish; **REC** Recreation; **ACC** Access; **WL** Wildlife; **TOU** Tourism; Regimes: S - Special; G - General; B - Basic; H - Higher; E - Enhanced; ES - Enhanced Silviculture; ETP - Enhanced Timber Harvesting CW - Community Water

4.3.3 Enhanced Forestry Zone RMZ

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The 22 EFZ areas identified on **Map 8** cover 808,222 ha (24% of the Island). However the amount of land that will actually be suitable for enhanced timber harvesting after the completion of more detailed operational plans under the FPC will be less, depending on operability and non-timber resource constraints.

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(**BOLD** denotes primary regimes)

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5	Holberg	**E**	**CW**/G	**G**	G	B	G	G	G	G	G	G
6	Keogh-Cluxewe	**ES/ETH**		**G**	G	G	**B**	G	G	G	G	G
8	Mahatta-Neuroutsos	**E**	G	**G**	**G**	B	G	G	G	G	G	G
10	Nimpkish	**E**	G	**G**	**G**	**B**	G	G	G	G	G	G
11	Bonanza	**ES/ETH**	G	**G**	**G**	**G**	G	G	G	G	G	G
15	Tahsish	**E**	G	**G**	G	**G**	G	G	G	G	G	G
18	Eliza	**E**	**CW**/G	**G**	G	B	**G**	G	G		G	G
19	Tahsis	**E**	**CW**/G	**G**	G	B	**G**	G	G	G	G	G
21	Tlupana	**E**	G	**G**	**G**	**G**	G	G	G	G	G	G
23	Kleeptee	**E**	G	**G**	**G**	B	G	G	G		G	G
24	Burman	**ES/ETH**	G	**G**	**G**	B	G	G	G	G	G	G
27	Naka	**ES/ETH**	G	**G**	G	B	**G**	G	G		G	G
28	Adam and Eve	**E**	G	**G**	**G**	**B**	**G**	G	G	G	G	G
30	Salmon	**E**	**CW**/G	**G**	**G**	**B**	G	G	G	G	G	G
36	Cous	**ES/ETH**	G	**G**	G	B	**G**	G	G	G	G	G
38	Effingham	**ETH/ES**	G	**G**	G	**G**	G	G	G	G	G	G
40	Maggie	**ES/ETH**	**CW**/G	**G**	G	B	**G**	G	G	G	G	G
42	Corrigan	**ES/ETH**	**CW/G**	**G**	**G**	**G**	G	G	G	G	G	G
43	Sarita	**ES/ETH**	**CW**/G	**G**	**G**	B	G	G	G	G	G	G
44	Klanawa	**E**	G	**G**	**G**	**G**	G	G	G		G	G
47	Loss-Jordan	**E**	G	**G**	G	B	**G**	**G**	G		G	G

Note: Cave/Karst management is limited to those RMZs with known features or high probability of such occurrence

TIM: Timber; **BIO** Biodiversity; **C/K** Cave Karst; **WAT** Water; **VIS** Visual; **CULT.HER** Cultural Heritage; **FISH** Fish; **REC** Recreation; **ACC** Access; **WL** Wildlife; **TOU** Tourism;
Regimes: S - Special; G - General; B - Basic; H - Higher; E - Enhanced; ES - Enhanced Silviculture; ETP - Enhanced Timber Harvesting CW - Community Water

Enhanced Forestry Regimes

Enhanced Timber Harvesting objectives vary from the general direction which is provided by the Forest Practices Code and will be established as higher level plan objectives to enable more flexibility for timing and layout of harvest operations. In contrast, the Enhanced Silviculture objective is provided to encourage enhanced silvicultural practices, but it will not be legally binding, recognizing that many factors which are external to land use planning influence the practicality of enhanced silviculture investments.

All legislated environmental stewardship provisions under the FPC and other legislation as reflected in the general regimes apply in EFZ areas (for general management regimes, refer to chapter 4.3.2).

Refer to Table 8 for an indication of where the specific regimes apply. For additional management considerations related to a specific EFZ unit, refer to the strategies identified in the individual area descriptions.

Enhanced Timber Harvesting Regime

Overall Goal/Intent: To increase short-term opportunity and flexibility for timber harvesting while sustaining long-term productivity and timber supply, and providing for forest and environmental stewardship in accordance with the legislated requirements of the Forest Practices Code.

Objectives

1. To increase the availability of timber,

a) cutblock size may be larger than 40 ha pursuant to section 11(2)(a) of the Operational Planning Regulation[63]; and

b) pursuant to section 68(4) of the Operational Planning Regulation, a cutblock is greened-up if it is adequately stocked and the leading species in the cutblock has attained a top height of at least 1m;

unless such cutblock would significantly impact specific wildlife, biodiversity, scenic or recreation values.

2. Minimize and/or mitigate adverse hydrological impacts which may result from the practices referred to in objective (1), in watersheds with significant watershed sensitivity and significant fisheries values, as determined by the district manager and designated environment official.

Strategies

The following strategies are offered for consideration, where suitable:

- cutblock size should be determined primarily based on economic considerations;
- apply silvicultural systems, including innovative systems, which are conducive to achieving the overall goal/intent and timber volume/product objectives of the zone.
- pursuant to section 14(1)(b) of the Operational Planning Regulation, a watershed assessment must be conducted in watersheds with significant fisheries values and significant watershed sensitivity, as determined by the district manager and designated environment official.
- for the purposes of Enhanced Timber Harvesting objective (2), watersheds with significant sensitivity usually include watersheds where:
  - the total area harvested during the past 20 years, including the yet to be harvested area of a proposed forest development plan, exceeds 25% of the total watershed area, and
  - a significant number of landslides that entered the stream channel are known to have occurred; or
  - stream channel stability problems are evident; or
  - over 25% of the riparian forest along either bank of the main stream channels has been logged over the past 40 years; or
  - landslide problems are anticipated due to recent harvesting on unstable terrain.

63 B.C. Reg. 107/98 O.C. 426/98 - Effective: June 15, 1998

Enhanced Timber Harvesting Regime...

Objectives	Strategies
3. When proposing the species composition for the purposes of OPR section 39 (3)(o), a person may, pursuant to section 41 OPR, select a single species that is ecologically suited to the area, even if a mix of species was present on the area before the timber was harvested. 4. Objectives 1 through 3 apply in Enhanced Forestry Zones, as shown on Map 8, save and except in community watersheds as defined in section 41(8) of the *Forest Practices Code of British Columbia Act.*	• recommendations for forest development plans in enhanced forestry zones prepared by a hydrologist or other qualified registered professional as part of a coastal watershed assessment, should take into consideration the overall intent of the zone to increase short-term opportunity and flexibility for timber harvesting; • in accordance with code requirements, apply watershed restoration measures such as road deactivation, revegetation of stream banks, etc., to minimize or mitigate hydrological impacts. Refer also to the strategies offered in the individual zone descriptions.

Enhanced Silviculture Management Regime

Overall Goal/Intent: To promote timber production to achieve timber volume and /or product objectives through the application of enhanced silvicultural practices.

Objectives	Strategies
To provide for higher timber volumes and/or particular timber products by applying, where practical, enhanced silvicultural practices, including single species management.	The following strategies are offered for consideration, where suitable: • minimize regeneration delay ; • plant larger stock; • fertilize at time of planting to shorten green-up time; • effectively control competing vegetation to maximize diameter and height growth of crop trees; • plant genetically improved stock of ecologically suited species, including non-native species; • ensure full stocking/site occupancy; • manage stand density and apply stand tending practices including, but not limited to: juvenile spacing, pruning, commercial thinning; • fertilize to increase yields; • apply rotation periods suitable to optimize timber volume and/or product objectives; • maintain the health and long-term productivity of trees and forests. Refer also to the strategies offered in the individual zone descriptions.

Individual Enhanced Forestry Zone Units

This section presents a description of resource values, as well as management objectives and strategies for the 22 individual Enhanced Forestry Zone units.

The objectives and strategies assigned to each resource value have been sorted into primary and secondary objectives in order to provide a better sense of overall management emphasis and intent, and to assist resource managers in their decision making. Fish and community watershed objectives, due to their particular importance on the coast, remain listed under primary objectives. In addition, watershed objectives form an integral part of the enhanced timber harvesting regime, which is primary in the Enhanced Forestry Zone.

The objectives and strategies assigned to each resource value in each unit are presented in abbreviated form, i.e. as the pertinent regime titles (e.g. enhanced timber harvesting), without presenting the detailed wording of each objective and strategy. For complete wording of the enhanced regimes, please refer to the previous section. For complete wording of the general management regimes, please refer to section 4.3.2. Where applicable, and based on available regional scale information, additional management strategies are provided for particular resource values, to clarify management advice in a given unit.

Total area figures given for the units are based on regional scale data, and may include parcels of private land. The objectives and strategies presented in this report, however, apply only to Crown land and private forest land within tree farm licence areas.

RMZ-4: San Josef-Koprino

Location: zone bounded by Cape Scott Park and SMZ 2 to the west, extending south-east, bounded by along Holberg Inlet and Quatsino Sound; includes Ahwhichaolto Peninsula

Total Area: approximately 56,000 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone suited for enhanced timber harvesting and production, while maintaining fish values and watershed integrity

Primary Forest Objectives

Timber:

Description: generally highly productive ground, with over 50% of forest cover over 120 years old
Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:

Description: fisheries values generally lower, intermediate for San Josef River
Objective: General Fish Management

Biodiversity:

Description: this zone is part of the San Josef draft landscape unit, which also comprises Cape Scott park and SMZs 2 and 4; CWHvh1 and CWHvm1 are the dominant BEC variants in this zone; CWHvh1 is well represented in Cape Scott park; CWHvm1 is underrepresented in this ecosection (Nahwitti Lowlands), but well represented in the Windward Mountains ecosection; additionally, riparian reserves and management zones, as well as SMZs capture CWHvm1 forests;
Objective: General Biodiversity Conservation Management
Strategies: emphasis should be on maintaining old seral forests mainly in riparian reserves and other excluded areas within this zone, as well as in the SMZ portions of the two draft landscape units.

Secondary Forest Objectives

Access:

Objective: General Access Management

Water:

Description: areas within this zone have experienced extensive timber development and may reach critical equivalent clearcut area levels; areas of sensitive slopes and terrain occur in this zone.
Objective: General Watershed Management
Strategies: emphasis on monitoring hydrological peak flow indicators.

Visual Resources:

Description: visually sensitive areas of local significance identified in Coal Harbour area, Quatsino and Jules Bay and along access route to Cape Scott park
Objective: General Visual Resource Management

Recreation Resources:

Description: River based recreation, particularly

angler and camping/canoeing opportunities in lower San Josef.
Objective: General Recreation Resource Management

Tourism Resources
Description: some coastal tourism capability along Holberg Inlet; facilities in Quatsino
Objective: General Tourism Management

Wildlife:
Description: few dispersed pockets of ungulate winter range, mainly in lower San Joseph River area; inventory lacking
Objective: General Wildlife Management
Strategies: maintain black bear habitat through stand level forest management practices (e.g. placement of wildlife tree patches)

Cave/Karst:
Description: karst terrain and features occur in various locations
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: some moderate to good potential for coastal finfish and shellfish culture

Mineral Resources:
Description: High metallic mineral potential, moderate industrial mineral potential; many mineral tenures.

RMZ-5: Holberg

Location: zone extending along northeastern shore of Holberg Inlet to Port Hardy

Total Area: approximately 40,500 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone suited for enhanced timber harvesting and production, while maintaining fish values and watershed integrity

Primary Forest Objectives

Timber:
Description: generally highly productive ground, with approximately 1/3 of forest cover over 120 years old
Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:
Description: fisheries values generally lower
Objective: General Fish Management

Community Water:
Description: Calbick Creek drainage area is a designated community watershed
Objective: Community Watershed Management in community watershed

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: areas within this zone have experienced extensive timber development and may reach critical equivalent clearcut area levels; areas of sensitive slopes and terrain occur in this zone; Quatse Lake is important for local water supply and proposed for community watershed designation
Objective: General Watershed Management
Strategies: emphasis should be on monitoring hydrological indicators

Visual Resources:
Description: visually sensitive areas of local significance identified along access route to Cape Scott Park, and along Holberg Inlet
Objective: General Visual Resource Management

Recreation Resources:
Description: very localized opportunities
Objective: General Recreation Resource Management

Tourism Resources:
Description: some coastal tourism capability along Holberg Inlet; heritage tourism values in Coal Harbour
Objective: General Tourism Management

Wildlife:
Description: lower wildlife values
Objective: General Wildlife Management

Biodiversity:
Description: this zone is comprised by the Holberg draft landscape unit; CWHvm1 is the dominant BEC variant in this zone
Objective: Basic Biodiversity Conservation Management

Strategies: emphasis should be on maintaining old seral forests in riparian reserves and other non-contributing areas.

Cave/Karst:

Description: karst terrain and features occur in various locations

Objective: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions:

Aquaculture:

Description: moderate to good potential for coastal finfish and shellfish culture

Mineral Resources:

Description: High metallic mineral potential, moderate industrial mineral potential; many mineral tenures.

RMZ-6: Keogh-Cluxewe

Location: area of flat to gently rolling terrain, extending from Port Hardy District Municipality along Keogh River system to Cluxewe watershed and Port McNeill

Total Area: approximately 45,800 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone suited for enhanced silviculture, and with limited opportunity for enhanced timber harvesting; integration of visual values along coastline and highway corridor, as well as recreational opportunities along Keogh River

Primary Forest Objectives

Timber:

Description: high productivity, with less than 1/3 of forests remaining in mature age classes

Objective: emphasis on Enhanced Silviculture, with limited opportunity for Enhanced Timber Harvesting in existing old forests

Fish:

Description: high anadromous fish values associated with Keogh and Cluxewe River

Objective: General Fish Management

Secondary Forest Objectives

Access:

Objective: General Access Management

Water:

Description: generally stable terrain; equivalent clearcut area levels do not appear critical at this point

Objective: General Watershed Management

Visual Resources

Description: visually sensitive areas along coastline, as well as highway corridor

Objective: General Visual Resource Management with emphasis on above areas

Recreation Resources:

Description: locally and regionally significant recreational values associated with Keogh River and Keogh Lake

Objective: General Recreation Resource Management with emphasis on above areas

Tourism Resources:

Description: coastal and facility-oriented tourism opportunities

Objective: General Tourism Management

Strategies: maintain visual resources along shoreline (see under visual resources)

Wildlife:

Description: generally lower wildlife values; elk herd in the Waukwaas

Objective: General Wildlife Management

Biodiversity:

Description: this zone is comprised by the Keogh draft landscape unit; CWHvm1 is the dominant variant

Objective: Basic Biodiversity Conservation Management

Strategies: incorporate old seral requirement with riparian reserves and other non-contributing areas

Cave/Karst:

Description: karst terrain and features occur in various locations

Objective: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:

Description: some moderate potential for coastal finfish culture, limited moderate shellfish culture potential

Mineral Resources:
Description: Moderate to high metallic and industrial mineral potential; many mineral tenures.

RMZ-8: Mahatta-Neuroutsos

Location: bounded by Quatsino Sound and Brooks Bay SMZ to the north and west, extending east surrounding Neuroutsos Inlet; in Windward Mountain ecosection.

Total Area: approximately 64,800 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone suited for enhanced timber harvesting and silviculture; wildlife values in Mahatta system (esp. in Mahatta draft landscape unit) and marbled murrelet values in noted drainages require specific integration through maintenance of old seral forest; objectives for other resources are to be integrated at the basic stewardship level in accordance with the Code requirements

Primary Forest Objectives

Timber:
Description: highly productive for timber production; approximately 50% of mature forest remaining
Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Wildlife:
Description: high marbled murrelet detections in Teeta, Cayuse, and Cayeghle; moderate (Mahatta draft LU) to lower ungulate wildlife values
Objective: General Wildlife Management
Strategies: emphasis should be on retaining old seral forest in accordance with biodiversity objectives (see below) for maintenance of marbled murrelet habitat in above noted drainages; manage and conserve known ungulate winter ranges

Fish:
Description: moderate to high fish values, particularly in Mahatta River, Cayuse, Colonial and Cayeghle Creeks
Objective: General Fish Management with emphasis on above noted drainages

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: areas with unstable terrain, as well as drainages with significant amount of early seral stage forests occur in this zone
Objective: General Watershed Management
Strategies: hydrological monitoring indicated

Visual Resources:
Description: few areas, mainly along Quatsino Inlet and across from Port Alice are classified as visually sensitive (local significance)
Objective: General Visual Resource Management with emphasis on above areas

Recreation Resources:
Description: steelhead fishery in lower Mahatta River (steelhead fishery), and land/water interface and anchorages in Drake Island and Kultus Cove areas are of regional significance
Objective: General Recreation Resource Management

Tourism Resources:
Description: mainly associated with coastline along Quatsino and Neuroutsos Inlets; lodge and resort capability in Teeta Creek area
Objective: General Tourism Management

Biodiversity:
Description: this zone is comprised by the Mahatta and Neuroutsos draft landscape units; all subzones/variants are well represented in PAs
Objective: Basic Biodiversity Conservation Management
Strategies: consider retaining more than one third of the old seral target if necessary to accommodate marbled murrelet habitat needs (refer to wildlife strategies)

Cave/Karst:
Description: occurrence of cave/karst terrain and features along Neuroutsos Inlet
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: considerable good potential for coastal finfish and shellfish culture

Mineral Resources:
Description: Moderate to high metallic mineral potential; low industrial mineral potential; some mineral tenures.

RMZ-10: Nimpkish

Location: area extending from Port McNeill and lower Nimpkish, along Nimpkish Lake eastward into middle reaches of Nimpkish, up to area just west of Woss (SMZ 6 and 9 boundaries)

Total Area: approximately 61,900 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone suited for enhanced timber harvesting and silviculture; significant fish, wildlife and biodiversity (CWHxm2) values require active integration (suggested long-term riparian recovery plan for active floodplain area to be developed at landscape level of planning); adaptive road engineering and harvesting methods indicated in sensitive terrain west of Nimpkish Lake

Primary Forest Objectives

Timber:
Description: very productive ground, extensive area of immature second growth forests in lower elevations; approximately 40% of mature forest cover remaining
Objective: Enhanced Silviculture, as well as Enhanced Timber Harvesting

Fish:
Description: moderate to high fish values, particularly in middle Nimpkish, Kilpala River and Anutz Lakes
Objective: General Fish Management
Strategies: develop, at landscape level of planning, a long-term recovery plan for riparian management area, with provisions for maintenance/recovery of old growth attributes along active floodplain of Nimpkish River (this will capture additional CWHxm2 representation - see biodiversity strategies)

Biodiversity:
Description: this zone is comprised by the Lower Nimpkish draft landscape unit; the CWHxm2 variant is regionally underrepresented, and comprises substantial areas in this zone; currently, less than 20% of CWHxm2 forests are in old seral condition within the zone
Objective: Basic Biodiversity Conservation Management
Strategies: riparian old growth recovery zone (see fish objective); old growth forest located in riparian management area and elsewhere in CWHxm2 should be retained in accordance with riparian requirements and full old seral target; active silvicultural measures should be applied to achieve old seral attributes and conditions in riparian management area; refer also to SMZ 10

Wildlife:
Description: moderate wildlife values (ungulate winter range) in middle Nimpkish area and in vicinity of Nimpkish Lake and Tsiko Lake (northern goshawk); productive black bear habitat
Objective: General Wildlife Management

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: sensitive terrain in Kilpala/Karmuzen Range
Objective: General Watershed Management

Visual Resources:
Description: visual values associated with highway corridor and west shore of Nimpkish Lake
Objective: General Visual Resource Management with emphasis on above areas

Recreation Resources:
Description: recreation values associated with Nimpkish Lake and River; also cave/karst values
Objective: General Recreation Resource Management

Tourism Resources:
Description: capability for backcountry and facility-oriented tourism in area between Kilpala River and Nimpkish Lake and areas adjacent to Nimpkish Lake Park.
Objective: General Tourism Management
Strategies: maintain tourism capability through recreation and visual management

Cave/Karst:
Description: extensive occurrence of cave/karst terrain and features, including Glory'ole planning area
Objective: General Cave/Karst Management
Strategies: refer to Glory'ole plan recommendations

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for coastal finfish and shellfish culture

Mineral Resources:
Description: Moderate to high metallic mineral potential; high industrial mineral potential; some mineral tenures.

RMZ-11: Bonanza

Location: extending from Telegraph Cove along Bonanza Lake to the headwaters of Bonanza River and bounded by the Tsitika-Woss SMZ to the southeast; within the Northern Island Mountains Ecosection

Total Area: approximately 41,900 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, suited for integration and achievement of enhanced timber harvesting and silviculture, as well as conservation of high fish values, and general old growth biodiversity conservation/recovery with emphasis on marbled murrelet and ungulate habitat; integration of visual values and local recreation use in areas identified

Primary Forest Objectives

Timber:
Description: highly productive, lower elevations in second growth, less than 50% of forest cover is in old forest (concentrated in higher elevations); the remainder is second growth up to 60 years old
Objective: Enhanced Silviculture, as well as very limited opportunity for Enhanced Timber Harvesting

Wildlife:
Description: intermediate wildlife values; dispersed pockets of ungulate winter range throughout; high wildlife capability; marbled murrelet detections in Kokish River drainage
Objective: General Wildlife Management

Fish:
Description: high anadromous values in the Kokish/Bonanza river systems
Objective: General Fish Management

Biodiversity:
Description: this zone is comprised by the Bonanza draft landscape unit, which also encompasses the Johnstone Strait SMZ (SMZ 7); CWHvm1 and vm2 are dominant variants; extent of vm1 old seral forests is close to recommended target as per Biodiversity Guidebook
Objective: General Biodiversity Conservation Management
Strategies: subject to the Special Timber Resource Management objective for SMZ 7 which requires that OGMAs be concentrated in the SMZ portion of the draft LU, maintain old seral forest in the zone with particular emphasis on riparian, marbled murrelet and ungulate habitat; consider old seral linkages where suitable and possible without exceeding old seral target; consider supplementary second growth connectors; if necessary to avoid severe social and economic consequences, consider harvesting of additional vm1 old forest in the zone below the old seral target (down to no less than two thirds of target) subject to identification of ecologically suitable old seral recruitment areas in vm1 second growth

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: sensitive terrain in higher elevations
Objective: General Watershed Management

Visual Resources:
Description: very limited: to coastline (which is mostly in SMZ), around Bonanza Lake and along highway corridor
Objective: General Visual Resource Management

Recreation Resources:
Description: local use associated with Bonanza Lake, and along coastline
Objective: General Recreation Resource Management

Tourism Resources:
Description: high marine and heritage tourism values at Beaver/Telegraph Cove; backcountry values associated with Bonanza Lake, coastal values are mostly captured in SMZ 7
Objective: General Tourism Management

Cave/Karst:
Description: extensive occurrence of cave/karst terrain and features along Bonanza River and in Tsulton watershed, including Glory'ole cave/karst planning area
Objective: General Cave/Karst Management
Strategies: refer to Glory'ole plan recommendations

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: limited potential for coastal finfish and shellfish culture; some existing marine and land based facilities

Mineral Resources:
Description: Moderate metallic mineral potential; high industrial mineral potential; some mineral tenures.

RMZ-15: Tahsish

Location: Tahsish River drainage

Total Area: approximately 17,200 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with opportunities for enhanced timber harvesting and silviculture, while maintaining fish and key wildlife habitat, as well as watershed integrity; biodiversity management at the general level; particular attention should be paid to cave/karst features and terrain which are extensive in this zone; objectives for other resources are to be integrated at the basic stewardship level in accordance with Code requirements

Primary Forest Objectives

Timber:
Description: moderate to high productivity; extensive second growth in lower elevations; well over 50% of forest cover remaining in mature
Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:
Description: moderate fisheries values in the Tahsish
Objective: General Fish Management

Biodiversity:
Description: this zone is comprised by the Tashish draft landscape unit, which also encompasses the Tashish-Kwois protected area; ecosystems occurring in the zone are well represented in the protected area;
Objective: General Biodiversity Conservation Management
Strategies: maintain connectivity across Tahsish valley between protected area and Kainum/Tlakwa range through retention of stand elements with high wildlife/biodiversity values;

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: some sensitive terrain; some drainages may approach equivalent clearcut area limit
Objective: General Watershed Management
Strategies: active equivalent clearcut area monitoring indicated

Visual Resources:
Description: lower sensitivity and significance
Objective: General Visual Resource Management

Recreation Resources:
Description: river-based, trails
Objective: General Recreation Resource Management

Tourism Resources:
Description: generally lower capability, except for backcountry tourism in the Tahsish Lake area
Objective: General Tourism Management

Wildlife:
Description: ungulate winter range; marbled murrelet detections in Tahsish watershed
Objective: General Wildlife Management

Cave/Karst:
Description: extensive occurrence of cave/karst terrain and features
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Mineral Resources:
Description: Moderate to high metallic mineral potential; moderate industrial mineral potential; some mineral tenures.

RMZ-18: Eliza

Location: Eliza and Espinosa peninsulas up to Zeballos Inlet, as well as Zeballos Tahsis peninsula up to Little Zeballos drainage

Total Area: approximately 34,700 h

Zone Category and Overall Management Direction: Enhanced Forestry Zone, particularly suited for enhanced timber harvesting in suitable areas (e.g. areas which are not visually sensitive), as well as enhanced silviculture on most productive sites; emphasis on scenic values along coast, and integration of associated recreation/tourism opportunities; objectives for biodiversity are to be integrated at the basic stewardship level in accordance with FPC requirements; adaptive road engineering/deactivation efforts are indicated to maintain terrain and watershed integrity

Primary Forest Objectives

Timber:
Description: generally moderate productivity, higher north of Little Espinosa Inlet and along Espinosa Creek; over half of forest cover is mature
Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:
Description: anadromous values in several smaller creeks (Kapoose, Tatchu)
Objective: General Fish Management

Community Water:
Description: Barton Creek is designated community watershed
Objective: Community Watershed Management

Visual Resources:
Description: visually sensitive areas all along coastline
Objective: General Visual Resource Management with emphasis along coast

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: presence of unstable terrain, particularly on slopes in Eliza peninsula; equivalent clearcut area monitoring indicated
Objective: General Watershed Management

Recreation Resources:
Description: associated with coastline
Objective: General Recreation Resource Management

Tourism Resources:
Description: significant use and high capability for coastal tourism
Objective: General Tourism Management with emphasis along coast

Wildlife:
Description: lower ungulate values; marbled murrelet detections along coast
Objective: General Wildlife Management

Biodiversity:
Description: this zone is comprised by the Eliza draft landscape unit; generally lower significance
Objective: Basic Biodiversity Conservation Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: abundant areas of good potential for coastal finfish and shellfish culture; some existing operations

Mineral Resources:
Description: Moderately high metallic mineral potential; moderate industrial mineral potential; some mineral tenures.

RMZ-19: Tahsis

Location: area extending between Zeballos Inlet and Tlupana Inlet surrounding Village of Tahsis, bounded to the north by Tahsis River and Leiner Creek drainages, to the east by height of land between Sucwoa and Canton drainages; includes McKelvie Creek community watershed

Total Area: approximately 40,300 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with opportunity for enhanced timber harvesting, as well as enhanced silviculture on most productive sites; emphasis on integration of visual values along coastline; objectives for biodiversity are to be

integrated at the basic stewardship level in accordance with FPC requirements; adaptive road engineering/ deactivation efforts are indicated to maintain terrain and watershed integrity

Primary Forest Objectives

Timber:

Description: generally moderate to high productivity, except for higher elevations in Mt. Leiner area; over half of forest cover in mature timber

Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Community Water:

Description: McKelvie Creek community watershed

Objective: Community Watershed Management

Fish:

Description: anadromous values in Leiner/Perry, Hoiss, and Tsowwin Rivers

Objective: General Fish Management

Visual Resources:

Description: visually sensitive areas along coastline, and in vicinity of Village of Tahsis

Objective: General Visual Resource Management with emphasis on above areas

Secondary Forest Objectives

Access:

Objective: General Access Management

Water:

Description: some unstable terrain, particularly on steeper slopes in Leiner area; equivalent clearcut area generally low

Objective: General Watershed Management

Recreation Resources:

Description: coastal recreation, karst south of Perry River, particularly Thanksgiving Cave Ridge, backcountry values in higher elevations (Mt. Leiner); heritage trail from Tahsis to Woss

Objective: General Recreation Resource Management with emphasis in above areas

Tourism Resources:

Description: significant use and some facilities; coastal, as well as backcountry tourism opportunities

Objective: General Tourism Management with emphasis on coastal areas

Wildlife:

Description: generally lower values; known values along the Perry River

Objective: General Wildlife Management

Biodiversity:

Description: this zone is comprised by the Tahsis draft landscape unit; lower significance

Objective: Basic Biodiversity Conservation Management

Cave/Karst:

Description: karst south of Perry River and west of Tahsis River and Inlet

Objective: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:

Description: abundant areas of moderate potential for coastal finfish and limited areas of moderate potential for shellfish culture

Mineral Resources:

Description: Moderately high metallic mineral potential; high industrial mineral potential; some mineral tenures.

RMZ-21: Tlupana

Location: zone surrounding Tlupana Inlet, including Tlupana, Nesook, Conuma and Sucwoa drainages

Total Area: approximately 44,900 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with significant opportunity for enhanced timber harvesting and silviculture, while maintaining high fish, wildlife and intermediate biodiversity values; integration of scenic/recreation/tourism values along coastline

Primary Forest Objectives

Timber:

Description: areas of very high productivity distinctly confined to lower elevations along rivers; second growth forests in lower elevations, well over 2/3 of forests are mature timber

Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:

Description: high fish values in Conuma, intermediate values in Tlupana and other systems

Objective: General Fish Management

Wildlife:
Description: high wildlife values, including ungulate and large carnivore populations; marbled murrelet detections along Conuma and Nesook Rivers
Objective: General Wildlife Management

Biodiversity:
Description: this zone is comprised by the Tlupana draft landscape unit; CWH vm1 and vm2 are the dominant ecosystems; high old growth values
Objective: General Biodiversity Conservation Management

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: sensitive terrain on steeper slopes; generally low equivalent clearcut area
Objective: General Watershed Management

Visual Resources:
Description: visually sensitive areas concentrated on coastline around Tlupana Inlet and travel corridors
Objective: General Visual Resource Management with emphasis on above areas

Recreation Resources:
Description: coastal setting in Tlupana Inlet, as well as alpine setting between upper Muchalat and upper Conuma drainages
Objective: General Recreation Resource Management

Tourism Resources:
Description: site specific opportunities in areas described under visual and recreation resources; several established facilities in Tlupana Inlet and Hanna Channel area
Objective: General Tourism Management

Cave/Karst:
Description: dispersed pockets of karst terrain, particularly in Sucwoa drainage
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions:

Aquaculture:
Description: abundant areas of moderate potential for coastal finfish and good to moderate potential for shellfish culture

Mineral Resources:
Description: Moderately high metallic mineral potential; moderate industrial mineral potential; some mineral tenures.

RMZ-23: Kleeptee

Location: small zone extending along north shore of Muchalat Inlet to Gold River estuary

Total Area: approximately 15,600 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, suited for enhanced timber harvesting and silviculture, while maintaining fish and wildlife, as well as watershed integrity; basic level of biodiversity conservation; integration of coastal scenic and recreation values.

Primary Forest Objectives

Timber:
Description: moderate to high productivity in lower elevations, approximately 80% in mature timber
Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:
Description: anadromous values in lower stream reaches
Objective: General Fish Management

Wildlife:
Description: intermediate values; elk in McCurdy, marbled murrelets
Objective: General Wildlife Management

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: some sensitive terrain, low equivalent clearcut area
Objective: General Watershed Management

Visual Resources:
Description: associated with coastline along Muchalat Inlet
Objective: General Visual Resource Management

Recreation Resources:
Description: coastal values: especially Williamsen Passage
Objective: General Recreation Resource Management

Tourism Resources:
Description: coastal opportunities
Objective: General Tourism Management

Biodiversity:
Description: this zone is comprised by the Kleeptee draft landscape unit; CWH vm1 and vm2 are the dominant variants; high proportion of old seral forest, but low significance for representation
Objective: Basic Biodiversity Conservation Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for coastal finfish or shellfish culture

Mineral Resources:
Description: Moderate metallic and industrial mineral potential; no mineral tenures.

RMZ-24: Burman

Location: zone extending along southern shoreline of Muchalat Inlet from Silverado Creek to lower reaches of Burman River (bounded by Strathcona Park)

Total Area: approximately 27,800 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone suited for enhanced silviculture, as well as limited enhanced timber harvesting; due consideration and integration of riparian and wildlife values associated with Burman River corridor into Strathcona Park; integration of biodiversity, recreation and scenic values as described

Primary Forest Objectives

Timber:
Description: highly productive in lower elevations; high proportion of mature timber remaining
Objective: Enhanced Silviculture, as well as limited opportunity for Enhanced Timber Harvesting

Fish:
Description: high anadromous values in Burman, Jacklah and lower reaches of other systems
Objective: General Fish Management
Strategies: special consideration for Burman River riparian corridor into Strathcona Park

Wildlife:
Description: waterfowl in Burman estuary, elk, marbled murrelet
Objective: General Wildlife Management

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: sensitive terrain; low equivalent clearcut area
Objective: General Watershed Management

Visual Resources:
Description: moderately sensitive viewsheds along inlet
Objective: General Visual Resource Management

Recreation Resources:
Description: coastal values and along Burman River riparian corridor
Objective: General Recreation Resource Management

Tourism Resources:
Description: coastal and backcountry opportunities (Matchlee Mtn., Burman River areas)
Objective: General Tourism Management

Biodiversity:
Description: this zone is part of the Burman draft landscape unit, which also comprises portions of Strathcona Park; high old growth, moderate wildlife values, low significance for ecosystem representation;
Objective: Basic Biodiversity Conservation Management

Cave/Karst:
Description: cave/karst in Pierce Range
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: limited areas of moderate potential for coastal finfish and shellfish culture

Mineral Resources:
Description: Moderate metallic and industrial mineral potential; some mineral tenures

RMZ-27: Naka

Location: extending along Johnson Strait, from Tsitika protected area to Mount Palmerston

Total Area: approximately 16,400 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone suited for enhanced silviculture and limited opportunity for enhanced timber harvesting in remaining old forests; maintenance of coastal viewsheds and associated recreational values; objectives for biodiversity and other resources are to be integrated at the basic stewardship level

Primary Forest Objectives

Timber:
Description: moderate to high productivity, particularly in Naka drainage; mature forest cover is concentrated in higher elevations
Objective: Enhanced Silviculture, as well as limited opportunity for Enhanced Timber Harvesting in remaining old forests

Visual Resources:
Description: visually sensitive areas all along coastline
Objective: General Visual Resource Management with emphasis along coast

Fish:
Description: lower values
Objective: General Fish Management

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: some steeper terrain; generally low equivalent clearcut area
Objective: General Watershed Management

Recreation Resources:
Description: high values along coast (killer whale rubbing beaches), alpine setting in Mount Palmerston area
Objective: General Recreation Resource Management

Tourism Resources:
Description: high capability for backcountry, and coastal tourism
Objectives and Strategies: General Tourism Management

Wildlife:
Description: lower values
Objective: General Wildlife Management

Biodiversity:
Description: this zone is comprised by the Naka draft landscape unit; CWHvm1 and vm2 are dominant variants and well represented in adjacent protected area; lower wildlife values
Objective: Basic Biodiversity Conservation Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: some areas of moderate potential for coastal finfish culture

Mineral Resources:
Description: Low to moderate metallic mineral potential; low industrial mineral potential; no mineral tenures.

RMZ-28: Adam and Eve

Location: Adam and Eve River watersheds, as well as Cain Creek portion of Davie watershed, up to Tsitika-Woss SMZ boundary; bounded by Newcastle Ridge to the east

Total Area: approximately 70,300 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone suited for enhanced timber harvesting and silviculture, while maintaining significant fish and wildlife values, as well as visuals along travel corridors; particular efforts to maintain soil, terrain and watershed integrity indicated

Primary Forest Objectives

Timber:
Description: generally highly productive along lower elevations, where second growth forests are concentrated; approximately 60% mature forests remaining, mostly in higher elevations
Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:
Description: high anadromous values in Eve River system; intermediate non-anadromous values in Adam system

Objective: General Fish Management

Wildlife:

Description: intermediate values, ungulate winter range, marbled murrelet capability

Objective: General Wildlife Management

Strategies: use old growth management areas to maintain marbled murrelet habitat (refer to biodiversity objective and strategies)

Visual Resources:

Description: associated with highway corridor and along coastline

Objective: General Visual Resource Management with emphasis on above areas

Secondary Forest Objectives

Access:

Objective: General Access Management

Water:

Description: sensitive terrain on steeper ground; generally lower equivalent clearcut area concerns

Objective: General Watershed Management

Recreation Resources:

Description: associated with coast, Adam and Eve junction pool and Newcastle Ridge

Objective: General Recreation Resource Management with emphasis on above areas

Tourism Resources:

Description: coastal tourism opportunities

Objective: General Tourism Management along coast

Biodiversity:

Description: this zone is comprised by the Adam-Eve draft landscape unit; CWHvm1 and vm2 are moderately underrepresented in this ecosection, but captured in adjacent zones (Tsitika, White)

Objective: Basic Biodiversity Conservation Management

Strategies: consider retaining more than one third of the old seral target if necessary to accommodate marbled murrelet habitat (refer to wildlife strategies)

Cave/Karst:

Description: dispersed pockets of cave/karst along middle reaches of Adam River

Objective: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:

Description: some area of moderate potential for coastal finfish culture

Mineral Resources:

Description: Low to moderate metallic mineral potential; moderate to high industrial mineral potential; some mineral tenures.

RMZ-30: Salmon

Location: Salmon and Memekay watersheds

Total Area: approximately 72,100 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with significant opportunity for enhanced timber harvesting, and enhanced silviculture in second growth forests; fish and wildlife, as well as biodiversity values in CWHxm2 along Salmon riparian area require elevated management attention; landscape level development of long-term recovery plan of old seral attributes in CWHxm2 along Salmon riparian system; integration of significant recreational values associated with Salmon system

Primary Forest Objectives

Timber:

Description: generally moderate to high productivity, more than half of the forests are in second growth, with mature forests remaining in upper reaches of Memekay and higher elevations

Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Community Water:

Description: Newcastle Creek community watershed

Objective: Community Watershed Management

Fish:

Description: high anadromous values in Salmon and Memekay

Objective: General Fish Management

Strategies: develop long term riparian recovery plan along Salmon River at landscape level planning

Wildlife:

Description: moderate present values but high capability in Salmon, high values in upper Memekay, Salmon, Paterson, Grilse Creek areas (ungulate

winter range); marbled murrelet and northern goshawk detections
Objective: General Wildlife Management

Biodiversity:
Description: this zone is comprised by the Salmon draft landscape unit; CWH mm1 and mm2, as well as CWHxm2 are main ecosystem types; CWHxm2 concentrated along middle and lower reaches of Salmon system, almost entirely in early seral condition
Objective: Basic Biodiversity Conservation Management
Strategies: retain all existing old seral forest in CWHxm2 until landscape unit objectives for old growth retention have been established; manage to replace old seral attributes in CWHxm2 along Salmon riparian system in accordance with the full old seral target (see fish objectives); consider second growth management to restore mature seral forest connectivity to upland ecosystems in upper Memekay

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: low equivalent clearcut area
Objective: General Watershed Management

Visual Resources:
Description: lower Salmon/Sayward road corridor
Objective: General Visual Resource Management with emphasis on above areas

Recreation Resources:
Description: significant values associated with Salmon River (fishing, river rafting, etc.)
Objective: General Recreation Resource Management

Tourism Resources:
Description: river-based opportunities, particularly in the Sayward Valley
Objectives and strategies: General Tourism Management with emphasis in above areas

Cave/Karst:
Description: cave/karst in Memekay, particularly Candlestick Cave
Objective and strategies: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Mineral Resources:
Description: Moderate metallic and industrial mineral potential; no mineral tenures.

RMZ-36: Cous

Location: Cous Creek watershed

Total Area: approximately 15,200 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with particular emphasis on enhanced silviculture and increased growth and yield; fish and visual resources require heightened attention where indicated; other non-timber values, including biodiversity are to be addressed at the basic level of stewardship in accordance with legislation and regulations

Primary Forest Objectives

Timber:
Description: high productivity, with majority in second growth timber
Objective: focus on Enhanced Silviculture, with limited opportunity for Enhanced Timber Harvesting

Fish:
Description: anadromous values in Cous system
Objective: General Fish Management

Visual Resources:
Description: along Alberni Inlet
Objective: General Visual Resource Management with emphasis along inlet

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: some drainages with higher equivalent clearcut area
Objective: General Watershed Management

Recreation Resources:
Description: basic values associated with roaded access to managed forest land
Objective: General Recreation Resource Management

Tourism Resources:
Description: high tourism capability along Alberni Inlet

Objective: General Tourism Management with emphasis along inlet

Wildlife:

Description: generally lower values; some dispersed winter range

Objective: General Wildlife Management

Biodiversity:

Description: this zone is comprised by the Cous draft landscape unit; generally lower old seral and representation values, some CWHxm2 along Alberni Inlet

Objective: Basic Biodiversity Conservation Management

Cave/Karst:

Description: dispersed pockets of cave/karst in upper Cous Creek area

Objective: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Mineral Resources:

Description: moderate to moderately high metallic mineral potential; moderate industrial mineral potential; many mineral tenures.

RMZ-38: Effingham

Location: comprises most of the Effingham River drainage, bounded to the south by SMZ 14 (Barkley Sound)

Total Area: approximately 12,400 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with opportunity for enhanced timber harvesting; maintenance of ungulate values, biodiversity conservation at the intermediate level

Primary Forest Objectives

Timber:

Description: lower to moderate productivity, very high proportion of mature timber

Objective: Enhanced Timber Harvesting; limited opportunity for Enhanced Silviculture (mainly along valley bottoms)

Fish:

Description: anadromous values in Effingham system

Objective: General Fish Management

Biodiversity:

Description: this zone is comprised by the Effingham draft landscape unit, which also encompasses portions of the Barkley Sound SMZ; high old growth values

Objective: General Biodiversity Conservation Management

Secondary Forest Objectives

Access:

Objective: General Access Management

Water:

Description: low equivalent clearcut area

Objective: General Watershed Management

Visual Resources:

Description: along inlet; highest values are captured in SMZ

Objective: General Visual Resource Management with emphasis along inlet

Recreation Resources:

Description: basic values associated with roaded access to managed forest land

Objective: General Recreation Resource Management

Tourism Resources:

Description: capability for coastal and backcountry (around Effingham Lake) tourism

Objective: General Tourism Management

Wildlife:

Description: ungulate winter range in Effingham Lake area

Objective: General Wildlife Management

Cave/Karst:

Description: dispersed pockets of cave/karst in upper Effingham

Objective: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:

Description: very limited potential for coastal finfish or shellfish culture

Mineral Resources:
Description: moderate to moderately high potential for metallic and industrial minerals; many mineral tenures.

RMZ-40: Maggie

Location: area south of Toquart surrounding Maggie Lake and extending south to Ucluelet Inlet

Total Area: approximately 14,600 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with particular emphasis on enhanced silviculture and increased growth and yield; visual values along coast and around Maggie Lake require full integration; other values to be addressed at the basic level of stewardship in accordance with legislation and regulations; need to consider buffer adjacent to Pacific Rim National Park

Primary Forest Objectives

Timber:
Description: moderate to high productivity, mostly in second growth timber
Objective: Enhanced Silviculture, and very limited opportunity for Enhanced Timber Harvesting

Fish:
Description: intermediate values, anadromous fish in Maggie system and lower stream reaches of smaller streams
Objective: General Fish Management

Community Water:
Description: Mercantile Creek (Ucluelet) and Itatsoo Creek (Toquaht Indian Band) are designated community watersheds
Objective: Community Watershed Management

Visual Resources:
Description: coastal and Maggie Lake
Objective: General Visual Resource Management with emphasis along coast and around Maggie Lake

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: generally low equivalent clearcut area
Objective: General Watershed Management

Recreation Resources:
Description: coastal and Maggie Lake
Objective: General Recreation Resource Management

Tourism Resources:
Description: coastal tourism capability, facilities in Ucluelet
Objective: General Tourism Management in above areas

Wildlife:
Description: lower values
Objective: General Wildlife Management

Biodiversity:
Description: this zone is part of the Maggie and Kennedy Flats draft landscape units; basic values
Objective: Basic Biodiversity Conservation Management

Cave/Karst:
Description: dispersed pockets of cave/karst
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:
Description: very limited potential for coastal finfish, good potential for shellfish culture

Mineral Resources:
Description: low to moderately high metallic mineral potential; moderately high industrial mineral potential; mineral tenures exist in the north-eastern part of the area

RMZ-42: Corrigan

Location: Franklin watershed, including Corrigan Creek; contains two small community watersheds

Total Area: approximately 24,500 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with particular emphasis on enhanced silviculture and increased growth and yield; wildlife values require heightened management attention; intermediate biodiversity significance; other non-timber and non-forest values are to be addressed at the basic level of stewardship in accordance with legislation and regulations

Primary Forest Objectives

Timber:
Description: highly productive, with majority in second growth timber, and blocks of mature remaining in higher elevations and at back end of drainages
Objective: Enhanced Silviculture, as well as limited opportunity for Enhanced Timber Harvesting

Fish:
Description: intermediate, anadromous values associated with lower Franklin
Objective: General Fish Management

Community Water:
Description: two small community watersheds
Objective: Community Watershed Management

Biodiversity:
Description: this zone is comprised by the Corrigan draft landscape unit; CWHxm2 occurs in northern part of the zone, mostly in second growth
Objective: General Biodiversity Conservation Management
Strategies: if necessary to avoid severe social and economic consequences, consider harvesting of old seral forest in CWHvm1 below old seral target (down to no less than two thirds of old seral target), provided suitable old growth management areas are identified in second growth

Wildlife:
Description: intermediate values - dispersed pockets of ungulate winter range; Vancouver Island Marmot habitat; northern goshawk nesting habitat/detections
Objective: General Wildlife Management

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: generally low equivalent clearcut area
Objective: General Watershed Management

Visual Resources:
Description: lower significance
Objective: General Visual Resource Management

Recreation Resources:
Description: values associated with roaded access to managed forest land
Objective: General Recreation Resource Management

Tourism Resources:
Description: limited coastal and backcountry capability
Objective: General Tourism Management

Cave/Karst:
Description: dispersed pockets of cave/karst in Coleman Creek
Objective: General Cave/Karst Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Agriculture:
Description: contains pockets of high capability non-ALR lands

Aquaculture:
Description: very limited potential for coastal finfish or shellfish culture

Mineral Resources:
Description: low to moderately high metallic mineral potential; moderately high industrial mineral potential; some tenures in the north-eastern part of the area.

RMZ-43: Sarita

Location: Sarita watershed extending along Alberni Canal up to Pacific Rim Park; contains two small community watersheds

Total Area: approximately 35,400 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with particular emphasis on enhanced silviculture and increased growth and yield, as well as limited enhanced harvesting opportunity; fish and wildlife as well as community water values require heightened management attention; other non-timber (including biodiversity) values are to be addressed at the basic level of stewardship in accordance with legislation and regulations.

Primary Forest Objectives

Timber:
Description: highly productive, with majority in second growth timber, and blocks of mature remaining in higher elevations and at back end of drainages

Objective: Enhanced Silviculture, as well as limited opportunity for Enhanced Timber Harvesting

Community Water:

Description: Sugsaw Lake (Bamfield) is designated community watershed

Objective: Community Watershed Management

Fish:

Description: intermediate, anadromous values associated with Coleman, Sarita and Pachena systems;

Objective: General Fish Management

Wildlife:

Description: lower to intermediate values - dispersed pockets of ungulate winter range; marbled murrelet detections in Sarita (refer also to biodiversity objective and strategies)

Objective: General Wildlife Management

Secondary Forest Objectives

Access:

Objective: General Access Management

Water:

Description: generally low equivalent clearcut area

Objective: General Watershed Management

Visual Resources:

Description: associated with coast, as well as Sarita, Frederick and Pachena Lakes

Objective: General Visual Resource Management with emphasis in above areas

Recreation Resources:

Description: values associated with roaded access to managed forest land, particularly in lower Sarita River, Sarita Lake area, and coastline along Trevor Channel

Objective: General Recreation Resource Management

Tourism Resources:

Description: facilities in Bamfield area; high coastal tourism use and capability

Objective: General Tourism Management with emphasis along coast

Biodiversity:

Description: this zone is part of the Sarita draft landscape unit; marbled murrelet habitat capability

Objective: Basic Biodiversity Conservation Management

Strategies: consider retaining more than one third of the old seral forest targets if necessary to accommodate marbled murrelet and other wildlife habitat

Cave/Karst:

Description: dispersed pockets of cave/karst in upper Sarita

Objective and strategies: General Cave/Karst Management

Cultural Heritage Resources:

Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Aquaculture:

Description: limited potential for coastal finfish and some moderate potential for shellfish culture; some existing operations

Agriculture:

Description: contains pockets of high capability non-ALR lands

Mineral Resources:

Description: low to moderately high metallic mineral potential; moderately high industrial mineral potential; some tenures in the north-eastern part of the area.

RMZ-44: Klanawa

Location: Klanawa River watershed

Total Area: approximately 24,800 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with significant opportunities for enhanced timber harvesting and enhanced silviculture; high fish values, and intermediate to high wildlife values; conservation of biodiversity at the intermediate emphasis level.

Primary Forest Objectives

Timber:

Description: highly productive throughout, high proportion of mature timber

Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:

Description: high values

Objective: General Fish Management

Wildlife:

Description: intermediate to high values, dispersed pockets of ungulate winter range, high marbled murrelet detections along Klanawa River

Objective: General Wildlife Management

Biodiversity:
Description: this zone is comprised by the Klanawa draft landscape unit; low representation, but intermediate habitat values; high proportion of old forests remaining
Objective: General Biodiversity Conservation Management

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: low equivalent clearcut area; terrain stability concerns
Objective: General Watershed Management

Visual Resources:
Description: few areas associated with lower Klanawa River
Objective: General Visual Resource Management

Recreation Resources:
Description: lower Klanawa River
Objective: General Recreation Resource Management

Tourism Resources:
Description: backcountry lower values
Objective: General Tourism Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Mineral Resources:
Description: low to moderate metallic mineral potential; moderately high industrial mineral potential; mineral tenures overlap southwestern part of area.

RMZ-47: Loss-Jordan

Location: Loss Creek and lower Jordan River watersheds

Total Area: approximately 31,100 ha

Zone Category and Overall Management Direction: Enhanced Forestry Zone, with enhanced timber harvesting, as well as enhanced silviculture and increased growth and yield opportunity; general integration of recreation, and tourism values, as well as visuals along road corridor and in Sombrio Creek area; other non-timber (including biodiversity) values are to be addressed at the basic level of stewardship in accordance with legislation and regulations

Primary Forest Objectives

Timber:
Description: moderate to high productivity, with high proportion of second growth timber
Objective: Enhanced Timber Harvesting and Enhanced Silviculture

Fish:
Description: anadromous fish in lower stream reaches
Objective: General Fish Management

Recreation Resources:
Description: coastline and vicinity of San Juan trail, as well as Juan de Fuca Marine trail; high use in proximity to urban areas
Objective: General Recreation Resource Management

Tourism Resources:
Description: high capability for coastal tourism
Objective: General Tourism Management

Secondary Forest Objectives

Access:
Objective: General Access Management

Water:
Description: generally low equivalent clearcut area; terrain stability concerns, fine textured soils
Objective: General Watershed Management

Visual Resources:
Description: sensitive values in lower Sombrio Creek area and along road corridor
Objective: General Visual Resource Management with emphasis in above areas

Wildlife:
Description: lower values, sparse pockets of ungulate winter range
Objective: General Wildlife Management
Strategies: where practical, enhance habitat with silvicultural prescriptions.

Biodiversity:
Description: this zone is part of the Loss and Tugwell draft landscape units; lower representation and habitat values
Objective: Basic Biodiversity Conservation Management

Cultural Heritage Resources:
Objective: General Cultural Heritage Resource Management

Non-Forest Resource Descriptions

Mineral Resources:
Description: moderately high metallic mineral potential; low to moderate industrial mineral potential; some mineral tenures.

4.4 Agricultural and Settlement Lands

4.4.1. Intent

The intent of the Agricultural Land designation is to recognize areas that can accommodate sustainable agricultural activity to contribute to community stability, economic diversification and food-self sufficiency on Vancouver Island. This zone generally reflects the boundary of the Agricultural Land Reserve, and large areas of existing farm land outside of settlement areas. It covers approximately 96,500 ha of land, comprising 3% of the Island.

The intent of the Settlement Land category is to recognize lands currently allocated or used for a range of human settlement uses and activities, and which require continued priority for subsequent planning and management due to their impact on regional resources and the environment.

These areas contain public resources and values that will necessitate the involvement of provincial agencies in their planning and management. This category constitutes approximately 108,000 ha of land, which represents 3% of the Island. Due to the scale of the Plan, settlement areas less that 250 ha in size are not shown in this category.

4.5 Private Lands

4.5.1 Intent

The private land category shows large private land holdings (over 250 ha in size), primarily on southeastern Vancouver Island, that are used predominantly as private managed forest land. Since the management regimes of this Plan only apply to Crown land and private land within Tree Farm Licences, these private lands have not been designated to a specific land category.

The private land area occupies approximately 18% of Vancouver Island.

4.6 Coastal Planning Units

4.6.1 Intent

Although not an official designation category or land use zone, the Plan divides the coastal zone into 20 Coastal Planning Units (CPUs). CPU boundaries were identified using general oceanographic attributes and geographic location. The intent of CPUs is to establish a geographical framework for the development of future integrated coastal plans at a more detailed scale. Future CPU planning will be driven by the level and nature of development activity, the status of planning in adjacent upland units and available planning resources.

4.4.2 Settlement and Agricultural Land Management Regime

Objectives

To identify lands where settlement uses and activities necessitate co-operation between all orders of government to properly manage key public resources and values within and adjacent to settlement areas.

To maintain the integrity of the Agricultural Land Reserve and Forest Land Reserve.

Strategies

Contribute to the local and regional planning activities of local governments to identify provincial resource objectives, issues and management approaches.

Retain agricultural lands and maintain opportunities for such areas to contribute to future food and agricultural commodity production.

Ensure urban expansion does not seriously compromise the contribution of adjacent resource lands to economic and environmental sustainability of the expanding urban area.

Maps:

8 - Land Use Designations

9 - Regional Planning Priorities

10 - Special Management Zones with Primary Visual Resource Values

MAP 8: Land Use Designations

LEGEND

Resource Management Zones

- **Protected Area (13%):** includes National and Provincial Parks, Ecological Reserves.
- **Special Management (8%):** Areas whose management priorities must incorporate identified primary environmental, recreational, and cultural/heritage values.
- **General Management (31%):** Areas managed under standard integrated resource management strategies of the Forest Practices Code.
- **Enhanced Forestry (24%):** Areas managed to produce higher volumes and values of timber while respecting environmental protection standards of the Forest Practices Code.
- **Agriculture (3%):** Areas that can accommodate viable and sustainable food production; includes all land within the Agricultural Land Reserve and areas under cultivation that are not within the Reserve.
- **Settlement (3%):** Areas of human settlement; including the existing concentration of settlements as well as First Nation Reserves larger than 250 hectares.
- **Private (18%):** Managed Forest Lands outside a Tree Farm Licence; includes small areas of other private and Crown land uses.
- Coastal Planning Units (General Management)
- Planning Area Boundary
- Clayoquot Plan Area Boundary

14 Feb 00

Scale 1:1250000

0 10 20 30 40

Kilometres

Land Use Coordination Office

Albers Equal Area Conic NAD83

BRITISH COLUMBIA

Small areas of private land not being managed as provincial forest are excluded from the plan, though not depicted on this map. In addition, small areas of crown land included in the plan are not identified on the map due to scale limitations.

MAP 9: Regional Planning Priorities

LEGEND

Planning Priorities

- Coastal Planning Units
  - Low Priority
  - Moderate Priority
  - High Priority
- General or Enhanced Zones
  - Low Priority
  - Moderate Priority
  - High Priority
- Special Management Zones
  - Low Priority
  - Moderate Priority
  - High Priority
- Protected Areas
- Planning Area Boundary

Scale 1:1250000

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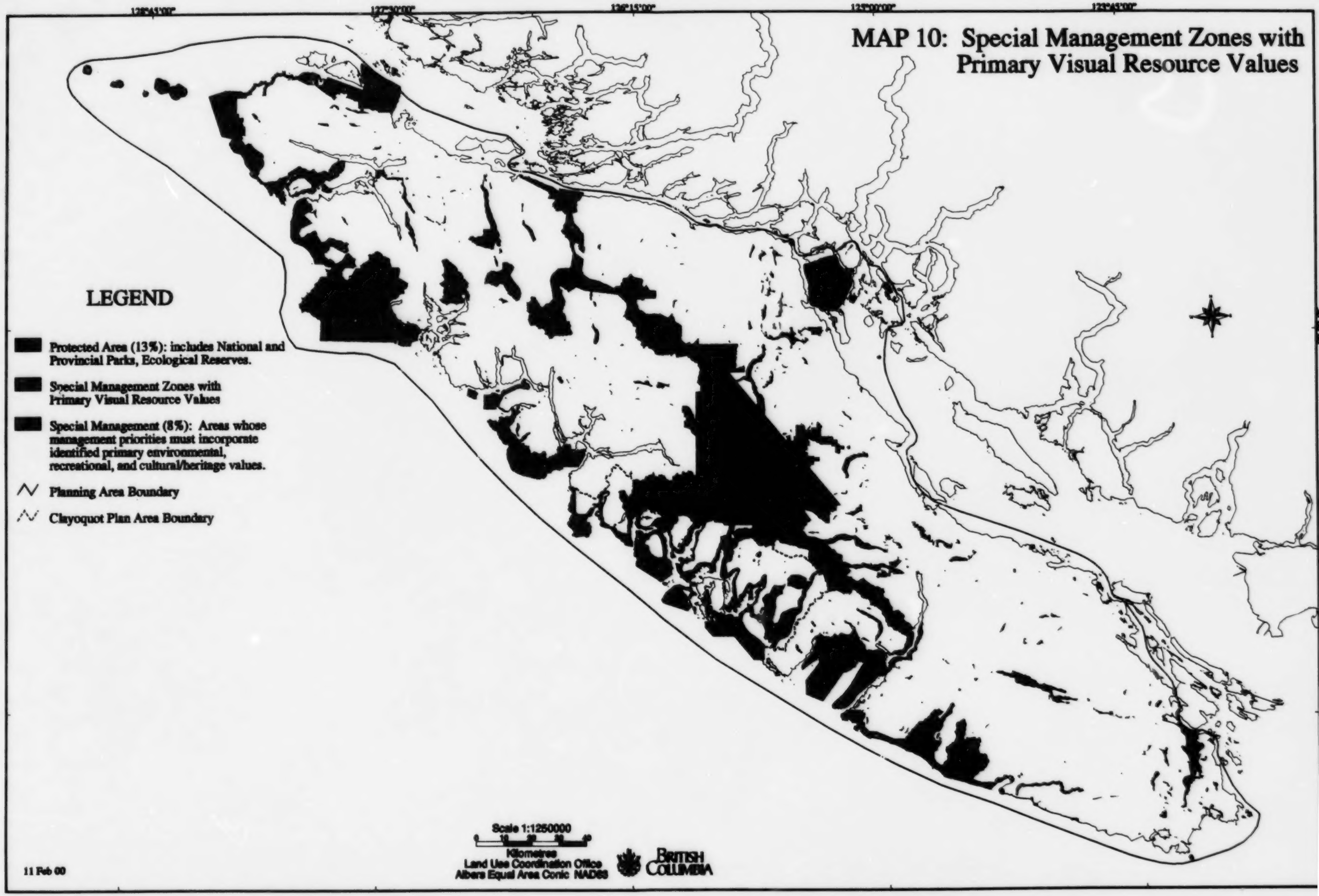
February 07, 1900

MAP 10: Special Management Zones with Primary Visual Resource Values



LEGEND

- Protected Area (13%): includes National and Provincial Parks, Ecological Reserves.
- Special Management Zones with Primary Visual Resource Values
- Special Management (8%): Areas whose management priorities must incorporate identified primary environmental, recreational, and cultural/heritage values.
- Planning Area Boundary
- Clayoquot Plan Area Boundary

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Land Use Coordination Office
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Socio-economic And Environmental Considerations

5.1 Background and Limitations

Due to the incremental nature of Plan completion projects since the 1994 Land Use Decision, no detailed analysis of the overall resource and related socio-economic impacts of the final Land Use Plan has been undertaken. However, some resource analysis data are available for the original 1994 Decision and subsequent Resource Management Zone planning undertaken by the Resource Targets technical team. These analyses provide an indication of the nature and magnitude of impacts associated with the final Plan compared to the Base Case (i.e. in the absence of a land use plan).

The economic impacts of land use changes resulting from the Plan are difficult to quantify, in part because activity in these sectors is dependent on many factors other than land use, such as international commodity prices and land claims. The most significant implications of the Plan are for the forestry sector. The Plan will also affect other sectors such as tourism and mining, although these impacts generally involve potential, rather than existing activity. However, land use change is only one of several factors affecting the viability of economic sectors. Also, the Plan does not directly affect Settlement or Agriculture Land areas.

The most significant source of socio-economic impacts will be new protected areas, as they will preclude forestry and mining activity, but protect fisheries values and preserve scenic and other natural values upon which wilderness tourism is based. The Plan does not result in significant changes in resource management emphasis outside of protected areas, since the balance of SMZ, GMZ and EFZ areas does not differ greatly from proportions expected as a result of application of the Forest Practices Code and other relevant legislation and policy.

In very general terms, the Plan will likely reinforce trends already evident in the population and economic structure of the Island, such as the gradual increase in the importance of the service sector and increasing economic diversification. While the new protected areas under the Plan may exacerbate ongoing difficult adjustments in the forestry industry, it is likely that because of the incremental nature of these impacts, the rate of population and economic growth on Vancouver Island will be similar to the Base Case situation.

The timing of economic impacts is very important to take into account. The impacts of new protected areas announced in the 1994 decision have already been deferred in the initial round of Timber Supply Reviews, but will be considered in current TSRs that will be concluded by the end of 2001. It is also possible to further mitigate timber-harvesting impacts through implementation of other government programs and policies such as Forest Renewal BC.

5.2 Forestry

The analysis of the CORE land use proposals for protected areas and SMZ areas indicated a short-term reduction in timber harvest levels of about 800,000 m3/yr. The impact of protected areas alone was estimated at about 580,000 m3/yr, including an allowance for the Goal 2 areas. However, the final Plan differs from the CORE proposals in several important aspects. Some protected areas were relocated from the Mt. Waddington Regional District to the Comox-Strathcona Regional District. This has not significantly affected the magnitude of timber supply impacts, but redistributes the impacts geographically to areas with lower forest economic dependency. An Enhanced Forestry Zone has been incorporated, which will still be subject to the Forest Practices Code but allows higher harvest levels due to relaxed green-up and adjacency requirements and intensive silviculture.

These changes, particularly the new Enhanced Forestry Zone, will likely mitigate the short-term timber harvest and related employment impacts compared to estimates presented in CORE's

proposed Plan. For example, a recent timber supply analysis for the Strathcona TSA indicates that the harvest impact of designating 4% of the timber harvesting land base in SMZs is offset by the 26% of this TSA that is designated EFZ. Analyses for other management units with equal or smaller proportions in SMZs (e.g. in some TFLs), and larger proportions in EFZs, as well as the application of enhanced silviculture practices may result in partial mitigation of protected area impacts.

These analyses suggest that the short term impact of the Plan would be, at most, a timber harvest reduction on the Island of about 580,000 m3/yr, i.e. the incremental harvest impact attributable to new protected areas. This represents about 5% of pre-Plan AAC on Crown land and about 4% of the total pre-Plan AAC on Crown and private land on the Island. This would potentially place at risk about 420 person-years (PYs) of employment on the Island, excluding pulp and paper impacts.[64] Including multiplier effects, this potential job impact represents up to 1% of the total labour force in the Regional Districts on the Island most affected by the Plan (Mt. Waddington and Comox-Strathcona).

The short term (e.g. next 10 years) and medium term (e.g. next 50 years) timber harvesting impacts of the Plan will vary by forest management units, depending on the distribution of new protected areas and different management zone types. For individual TSAs and TFLs, the amount of total area in EFZ ranges from a low of less than 10% to a high of almost 100%, while the extent of SMZ ranges from 0% to over 15%. The Plan's short and medium term impacts will be more significant in those TFLs and TSAs where the projected harvest flows are declining to a lower long term harvest level. In management units with a stable or increasing harvest flow, there is more opportunity to absorb or defer short and medium term impacts.

The longer-term timber harvesting impacts of new protected areas should be less than short-term impacts, since the volumes of timber per hectare affected will be smaller for second versus original growth. Across all TFLs and TSAs (outside of Clayoquot Sound), the creation of new protected areas resulted in an overall reduction of the timber harvesting land base by about 4%. The employment implications of longer term harvest impacts would also be less significant because of factors such as technological change and rationalization within the forestry industry, and continued growth in the Island economy. There will be some long term impacts, however, because of the removal of land base for protected areas.

In summary, the Plan's protected area designations have the potential to exacerbate the difficult short-term adjustments in some communities and for some workers. This has been occurring as a result of the downturn in Asian markets and other factors in the Base Case. However, the enhanced forestry provisions of the Plan, including the establishment of the Forest Land Reserve may partially offset protected area impacts, and increased investments in regenerated forests may even hold the promise of higher, future yields in some management units. The phased-in approach of harvest reductions and other government initiatives (e.g. FRBC), as well as appropriate transition strategies by the private sector (e.g. attrition and early retirement) will facilitate adjustments by communities and individuals. The establishment of the Forest Land Reserve will prevent conversion of forest land to urban and related commercial development and keep timber harvest levels and related employment higher than it otherwise might have been in the Base Case.

5.3 Tourism and Recreation

The creation of new Goal 1 and Goal 2 parks should significantly enhance the potential for nature-based tourism growth on Vancouver Island. These new parks will protect some of the most scenic wilderness areas and recreational features on the Island, including the Upper Carmanah, Walbran and Tahsish-Kwois watersheds, and northern coastal areas associated with creation of the North Coast Trail. The future implementation of the joint federal / provincial Marine Protected Areas Strategy should further enhance the Island's attractiveness for marine-based ecotourism.

64 Vancouver Island Land Use Plan, Commission on Resources and Environment, Volume I, p. 195. This estimate excludes the Clayoquot Sound land use decision since it was not part of VILUP. Pulp and paper processing impacts are also excluded because of the availability of alternative, albeit perhaps more costly, fibre supplies.

In addition, the SMZ areas in which scenic, recreation and other natural values have management priority may also contribute to growth in ecotourism. These SMZs will be particularly important for commercial facilities that may depend on the attributes of, but would not be appropriate to locate in, protected areas. The new Commercial Backcountry Recreation policy, which provides greater certainty of tenure for commercial recreation facilities, should complement the Plan by increasing investor certainty in this sector on some Crown lands.

The realization of ecotourism benefits will occur over time, driven by population growth and demand, and as existing parks and recreation areas become increasingly crowded or have management constraints imposed (e.g. West Coast Trail). Growth in wilderness tourism employment will also depend on other factors such as entrepreneurial experience and capital. Tourism is already a key component in the economic development plans of many communities on the Island, and the Plan will further enhance the opportunities that this sector provides for economic diversification and sustainable growth. This will in turn increase the attractiveness of the Island for new in-migrants.

The new protected areas will also provide benefits other than employment, such as opportunities for recreation by local residents and so-called "existence values", i.e. the value placed on preserving wilderness areas for future generations. For example, a province-wide Ministry of Forests survey in 1993 indicated that the willingness-to-pay for increasing the amount of park land from 6% to 12% in BC was about $152 million in 1998 dollars, annually. These results indicate that British Columbians are willing to make financial contributions to preserve wilderness and recreation opportunities in perpetuity.

Enhanced Forestry Zone areas and less restrictive adjacency constraints may result in impacts on scenic quality in some areas.

5.4 Mining and Energy

The new protected areas in the Plan have been designed to minimize impacts on the Island's high potential mineral lands. Based on preliminary analysis for the original CORE report, roughly 3% of high mineral potential areas would be precluded from exploration development by the Plan's protected areas. There would be an additional 4% of high mineral potential located in SMZs, which could incrementally increase exploration and development costs. Such an analysis acknowledges the cyclical nature of market conditions for minerals, as well as the hidden nature of mineral deposits, which could result in an underestimate of real impacts. However, government's new *Mining Rights Amendment Act* and tax credits for exploration affirms the right of access to mineral deposits in all lands outside of protected areas and will help to mitigate exploration cost increases.

The Plan should have negligible impacts on the Island's energy sector. Most of the growth in energy demand will likely be met by off-Island sources such as the Vancouver Island gas pipeline and BC Hydro's grid. Co-generation projects, such as the new project in Campbell River, will likely occur on existing industrial lands. Oil and gas exploration and development will depend on federal and provincial decisions regarding the existing offshore moratorium. Mineral and energy prices, determined in world markets, will continue to be the dominant factor determining activity levels in these sectors.

5.5 Fisheries

The proposed protected and special management areas in the original CORE Plan included fish streams with roughly 10% of salmonid escapements on Vancouver Island. The current Plan likely affects a similar proportion of salmonid stocks. This will reduce the risk of habitat degradation for salmonid and freshwater stocks, although impacts may not be substantial for streams already protected by the riparian buffers required in the FPC. The FPC also applies in all zones outside protected areas.

Additional protection provided by the Plan for fish stocks will result in potential benefits for commercial, recreational and First Nations fishers. However, these potential gains, particularly for species such as coho and chinook, are dependent to a large degree on appropriate harvesting systems that

target larger, more productive stocks such as Fraser River sockeye, without damaging smaller, weaker stocks. The precautionary approach recently adopted by DFO to minimize the impacts of mixed fisheries, if continued, would better ensure that the fisheries gains from the Plan are realized. Kelp and wild oyster resources and habitat are well represented in the Plan Area within protected areas, with almost 30% of the major kelp stocks and over 12% of the wild oyster bearing shoreline in the protected area category. Commercial kelp and wild oyster harvesting are limited to stocks outside protected areas.

It should be recognized that the Plan will not affect land use on private or ALR lands, which include a number of important anadromous and freshwater streams. However, the proposed streamside protection measures for urban streams in the new *Fish Protection Act*, and the new Private Forest Land Memorandum of Understanding (MOU), should also reduce the risk of habitat damage to fish stocks. Habitat rehabilitation being undertaken by Fisheries Renewal BC and watershed restoration by FRBC will further complement the beneficial effects of the Plan on the fisheries resource.

5.6 Aquaculture and Agriculture

New protected areas in the Plan, including the one kilometre nearshore buffer on land-based areas, preclude about 14% of ocean area classified as having good potential for finfish aquaculture sites. A number of potential shellfish sites may also be affected. There may also be some expansion constraints on existing operations within new PAs.

Growth in the industry can be accommodated on existing and potential sites outside protected areas. There may be some diversion from Vancouver Island to locations elsewhere in BC that have fewer resource conflicts although this is tempered by the lack of essential infrastructure in more remote regions. Significant growth in shellfish aquaculture activity is also expected as a result of the recent government Shellfish 2000 initiative to make more Crown foreshore available to the industry. Future coastal planning processes for Vancouver Island will assist government in determining the opportunities for aquaculture activities and other coastal uses, including marine protection.

The Vancouver Island Summary Land Use Plan essentially confirms the land currently designated and used for agriculture, therefore a direct impact on existing agricultural activity is expected compared to the situation without a plan in place (Base Case). There may be a reduction in the agricultural land base outside of the Agricultural Land Reserve due to development pressures, particularly in the southeast portion of Vancouver Island. However, this would likely occur in the Base Case situation. The ALR contains sufficient amounts of currently uncultivated or under-cultivated land to accommodate future market growth, assuming these lands are appropriately planned and managed.

5.7 Environmental/Biodiversity Impacts

Given its regional scale and the sequencing of the various reports that comprise the final Land Use Plan, a comprehensive environmental and biodiversity impact assessment has not been possible. However, some general observations and qualitative evaluations can be made. In addition, a quantitative assessment of the current extent and distribution of old growth and the potential effect of the resource management zones and objectives on the projected future old growth on Vancouver Island was conducted by the Resource Targets technical team.

In general terms, an increase in protected areas achieved by the Land Use Plan should result in a net benefit to the environment, through the elimination of resource extraction activities. New protected areas will also contribute to biodiversity through the increase in representation of key ecosystems. The old growth assessment concluded that approximately 250,000 ha of old forests (17% of all old growth on Vancouver Island) are now located within protected areas; this includes approximately 70,000 ha of old growth which was protected by the creation of new parks created through the Plan.

The biodiversity objectives associated with the RMZs will guide the establishment of old growth management areas as part of landscape unit planning in accordance with the Code. It is estimated that

between 160,000 and 220,000 ha of old growth forests (between 10 and 15 per cent of total old growth on VI) will be maintained for biodiversity conservation under the Code[65].

With more stringent objectives and strategies in SMZ areas there should be a net benefit to environmental and biodiversity values. In many SMZs there will be better protection of rare and underrepresented forest ecosystems.

While the focus of protected areas and many SMZs is the protection of old growth forest ecosystems, forests in EFZs will generally be younger in age, favoring those wildlife species associated with early seral forest stages. The provisions for larger cutblock sizes and relaxed green-up requirements in EFZs have the potential to reduce forest fragmentation and to cut down on the amount of roads and associated hydrological hazards. Although the size of cutblocks in EFZs may increase, the structural retention of wildlife tree patches in accordance with Code requirements will ensure that important wildlife habitat will be maintained. General riparian, watershed assessment, soil, wildlife and other environmental stewardship provisions apply in all zones, including EFZs, in accordance with the legislated requirements of the Forest Practices Code.

It has been suggested that to maintain ecosystem health and biodiversity in a regional landscape, it is not necessary that all land within the region be managed for those goals. There is mounting evidence that the optimum strategy for biodiversity would involve some strong distinctions between the management emphasis on different lands within a region. Thus, it might be more effective to manage some lands primarily for timber - as in EFZs - and some primarily for biodiversity - as in PAs and many SMZs - rather than to try to manage all lands for an equal mix of values. To that end, timber-emphasis zoning through an EFZ designation, and biodiversity emphasis zoning through PAs, SMZs and the biodiversity provisions of the Code, form an integral part of an overall biodiversity strategy for Vancouver Island.

5.8 Social Impacts/Transition and Mitigation

Government revised the original CORE protected area proposals. This resulted in a redistribution of PA timber harvest impacts from Mt. Waddington Regional District with a relatively small, forestry-dependent workforce of about 5,000, to the Comox-Strathcona Regional District where the labour force is much larger (about 50,000) and economic opportunities are more diverse. Analysis for the Protected Areas Boundary Adjustment Team indicated that roughly 20% of mature timber volumes in new PAs is located in the Mt. Waddington Regional District, 50% in the Comox-Strathcona District and about 40% in the rest of Vancouver Island.

It is unlikely that the Plan, in itself, would result in closure of any logging operations or processing facilities. One mitigating factor is the fact that timber-harvesting impacts within TSAs are prorated among licensees based on their current share of the AAC. The same principle though does not apply to TFLs where the license holder has the responsibility for management of the timber supply. However, the Plan could exacerbate the timber supply situation for operations and facilities that were already marginal. Impacts may take the form of reduced income (e.g. resulting from fewer workdays due to periodic shutdowns) rather than permanent job losses.

The positive and negative economic impacts of the Plan will be unevenly distributed among communities and individuals, and in general, displaced forestry workers will not benefit from increased opportunities in tourism and fisheries. Adjustments will be particularly difficult in the North Island due to higher dependence on forestry and the lack of alternative employment opportunities. Some displaced workers will likely move to other communities on the Island and the mainland in search of work. However, based on past experiences, it is assumed that assistance to displaced forestry workers and forestry dependent communities would continue through government and industry programs focused on retraining, value-added products, intensive silviculture and watershed restoration programs. Also, appropriate transition

65 Please note that some of the old growth forest located in protected areas will contribute to the old growth management area requirements under the Code; therefore, old forests in protected areas and old forests in OGMAs overlap to some extent and are not entirely cumulative.

strategies (e.g. early retirement and attrition) by industry could mitigate impacts on workers and communities. For example, it is estimated that in 1994, there were 2,000 loggers and sawmill workers on the Island over the age of 50 who were potentially eligible for early retirement.

The net effect of the Plan in the medium to longer term might be to accelerate an already occurring restructuring of the economy. However, taking into account the positive impacts of the Plan on sectors such as ecotourism and fisheries, and the ability of workers and communities to adapt, it is not clear that the Plan will result in net job loss or even reduce employment growth on the Island. This is supported by historical trends that indicate overall growth in employment in both the goods producing and service industries over the 1981-96 period, despite absolute declines in forestry and other resource sector employment. Therefore, the Plan will tend to reinforce the increasing diversification of the Vancouver Island economy, although the adjustments for some individuals and communities could be difficult.

Plan Implementation, Monitoring And Amendment

6.1 General Provisions

Implementation of the Plan will be reflected in the delivery of agency programs, initiatives and tenure decisions within the framework of existing legislation, regulations, and management guidelines.

The special and enhanced resource management zones of this plan, as well as key resource management zone objectives for forest practices and resources, will be declared as Resource Management Zones under the higher level plan provisions of the Forest Practices Code, to direct subsequent operational planning

The strategic direction, objectives and strategies and procedures for non-forest uses and activities represent the approved government policy direction for the Plan area, and are to be followed by agencies.

Government will implement the Plan in accordance with available budget and staff resources. This includes the negotiation and acquisition of private lands identified in the 1994 Land Use Decision and the Special Features Protected Area announcement in 1996.

The term of the plan (life span) is ten years, with a formal review to commence in the year 2003.

6.2 Roles and Responsibilities

The Vancouver Island Inter-Agency Management Committee (IAMC) of provincial government agency managers will co-ordinate development of a long-term implementation strategy for the Plan. The IAMC will clarify and confirm management actions and agency responsibilities for implementation, and promote and monitor compliance by agencies. In response to agency requests, the IAMC will interpret management objectives and strategies to assist with Plan implementation. The IAMC will coordinate the establishment of a Plan monitoring committee, provide regular liaison with the monitoring committee and existing local community resource boards, and coordinate preparation of scheduled Plan reviews.

Provincial government agencies are responsible for implementing plan provisions, in accordance with legislated responsibilities for land and resource management. Agencies will incorporate plan provisions into existing programs for the Plan Area, and will ensure Plan compliance by resource users. Agencies will advise the IAMC on aspects of Plan interpretation and implementation, provide recommendations on proposed Plan amendments, and participate in scheduled Plan reviews.

The Plan Monitoring Committee is a group of Island-wide stakeholders, government and First Nations representatives, including representatives of community resource boards. The Monitoring Committee will be comprised of individuals nominated from their organizations to represent various interests across the Island, and will be ratified by the IAMC. The Monitoring Committee will advise the IAMC on plan implementation, monitoring and amendment issues, as well as provide advice on Plan interpretation and proposed amendments. The Monitoring Committee will review and comment on scheduled Plan monitoring reports prepared for the IAMC, and will engage the broader public in review of these reports where and when necessary.

The Community Resource Boards established for the Nootka Sound area and the Mt. Waddington Regional District presently have a key role in local implementation of the Plan and local resource use issues. The CRBs will function in accordance with their terms of reference, established in cooperation with government and as amended from time to time. The CRBs will provide representatives to the Plan Monitoring Committee, will have opportunity to provide local input on recommended plan amendments, and may serve as local forums for other government programs, including Forest Renewal BC.

6.3 Plan Monitoring

In collaboration with the Plan Monitoring Committee and agencies, the IAMC will confirm specific "indicators" to monitor the degree to which Plan goals, objectives and strategies are being implemented. These indicators will reflect experience with other strategic plans and will utilize, wherever possible, existing agency monitoring and research programs.

The IAMC will oversee the preparation and review of an annual public report concerning the status and effectiveness of Plan implementation. The first annual implementation report will be completed by March 31, 2001, and will outline actions taken to date to implement Plan management strategies, evaluate the effectiveness of management strategies in achieving Plan objectives, and will propose actions, where appropriate, to respond to ineffective aspects of implementation.

Annual implementation reports will be developed in collaboration with, and formally presented to, the Plan Monitoring Committee. The Committee will coordinate further public review opportunities, if necessary, and will advise the IAMC of any outstanding issues or concerns requiring agency action.

6.4 Plan Amendments

Plan amendments may be proposed to the IAMC at any time. Proposals must be in written form and may be made by the public, CRBs, the Plan Monitoring Committee, or agencies.

Plan amendment proposals will be compiled by the IAMC and reviewed on an annual basis with the Plan Monitoring Committee. These will include:

- Plan document and map editing work;
- revised planning priorities or new inventory information;
- changes to zone boundaries, objectives and strategies resulting from more detailed plans;
- changes required to reflect legislative and policy amendments;
- changes in local planning priorities; and
- results of major project reviews, special studies or treaty negotiations.

A formal Plan review and update is to occur in 2003, at which time all amendments made will be incorporated into a revised plan.

Issues involving interpretation of the Plan should be brought to the attention of the IAMC for appropriate action.

6.5 Future Planning Initiatives and Priorities

Implementation will also occur through the development of more specific, detailed planning activities. Such planning will be undertaken over time and is subject to available funding. Implementation of operational planning of forests in SMZ and EFZ units will be consistent with the objectives and zones established as a "higher level plan" under the *Forest Practices Code of British Columbia Act.*

Local planning initiatives and the resulting products will be guided by, and be consistent with direction in the Vancouver Island Plan.

6.5.1. Landscape Unit Planning

Landscape Unit planning will be led by the Ministry of Forests and the Ministry of Environment, Lands and Parks to address biodiversity requirements of the FPC. Landscape unit objectives will be consistent with resource management zone objectives established as higher level plans under the FPC.

Landscape Unit plans will be prepared according to the Regional Landscape Unit Planning Strategy found in Appendix 1, and as amended from time to time by the Ministry of Forests and the Ministry of Environment, Lands and Parks. Plans will be developed on the basis of the Landscape Unit Planning boundaries and priorities identified on **Map 9** and in Appendix 1.

6.5.2 SMZ Area Planning

SMZ areas will be planned in accordance with the objectives and strategies identified in section 4.3.1. The SMZ plans will also address the issues stakeholders and interests identified in the Planning Framework Statements identified in Appendix 3.

Wherever possible, the planning of SMZ areas will be incorporated into planning of the associated Landscape Planning units.

6.5.3. Protected Area Planning

Management planning for protected areas will be undertaken by BC Parks. This planning will include a high degree of public and stakeholder involvement. BC Parks will work closely with First Nations and community resource boards in the planning process to address issues such as type of uses, levels of development, management of natural, recreational and cultural values. Given the timelines involved in good public consultation and limited staffing, these plans will be developed over time with priority given a number of considerations. These include values at risk or threat complexity and depth of issues; degree and intensity of public and government agency interest; and formal agreements with other agencies or First Nations.

The two main instruments for directing park management are Management Direction Statements and Master Plans. A Management Direction Statement (MDS) will be created for each protected area unless a Master Plan is recommended as the initial level of planning due to specific issues and values. MDS provide the initial strategic management direction for all protected areas while Master Plans establish operational planning priorities that reflect the need to manage for the long term (200 years) requirements of the ecological components of protected areas. MDS do not negate the need for future, more detailed plans. Instead they will provide direction for such plans, as well as provide direction for the development of annual management for individual protected areas

6.5.4. Coastal Planning Processes

Coastal planning processes will be undertaken for coastal planning units, guided by the priorities identified in Appendix 1 and shown on **Map 9**. Coastal planning may be done for a variety of purposes and programs, and at various scales.

The province will collaborate with federal agencies, local government and First Nations in the planning of coastal areas. Coastal planning will utilize a public participation model appropriate for the scale of planning and the issues being addressed.

In accordance with the federal/provincial Marine Protected Areas Strategy, coastal planning will include consideration of possible MPA candidates.

6.5.5. Settlement Planning Processes

Settlement planning will be undertaken pursuant to the *Municipal Act*, and regional growth strategies pursuant to the *Growth Management Act*.

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Appendix 1: Planning Priorities

The following planning priorities reflect current agency commitments and stakeholder expectations. The are, however, subject to change, based on the availability of funding and resources.

A: Planning Priority For Regional Landscape Units

Landscape Units	RMZ No. & Name (Refer to Map)	Biodiversity Emphasis	SMZs Within LU Boundaries	Protected Areas within LU Boundaries
High Planning Priority				
Adam-Eve	28: Adam and Eve	Lower		Schoen Lake
Artlish	17: Artlish-Kaouk	Intermediate		Artlish Caves
Ash	35: Ash-Central Sproat	Intermediate		Strathcona
Bonanza	11: Bonanza	Intermediate	7: Johnstone Strait	
Caycuse	46: Gordon-Caycuse-San Juan	Intermediate		Pacific Rim National
Chemainus	34: E&N South	Intermediate		Chemainus
Cowichan	34: E&N South	Lower		Gordon Bay, Cowichan River Corridor
Effingham	38: Effingham		14: Barkley Sound	
Englishman	34: E&N South	Intermediate		Englishman River Falls Rathtrevor
Escalante	25: Escalante	Lower		
Great Central	35: Ash-Central Sproat	Intermediate	17: Strathcona-Taylor	Strathcona
Kashutl	14: Kashutl	Lower	5: South Brooks-Bunsby	Brooks Nasparti Big Bunsby, Dixie Cove
Klaskish	9: Klaskish	Higher	3: Brooks Bay	
Loss	47: Loss-Jordan	Lower	22: San Juan Ridge	China Beach, Loss Creek Botanical Beach, Parkinson Creek
Marble	7: Marble	Intermediate		
Nahwitti	3: Nahwitti-Tsulquate	Intermediate		
Nootka	20: Nootka	Intermediate	12: Western Nootka Island	Nuchatlitz, Santa Boca
Quadra	32: Quadra-Cortes	Intermediate	19: Quadra	Main Lakes Chain Octopus Island Waiatt Bay-Small Inlet Rebecca Spit
Rosewall	34: E&N South	Intermediate	20: Upper Qualicum	Rosewall Creek, Bowser, Horne Lake Caves Spider lakes
Salmon	30: Salmon	Lower		Strathcona
San Josef	4: San Josef-Koprino	Intermediate	2: West Coast Nahwitti Lowlands 4: Koprino	Cape Scott
Sayward	31: Sayward	Intermediate		Rock Bay Marine, Elk Falls Loveland Bay, Morton Lake
Shushartie	2: Shushartie	Higher	1: Goletas Channel	God's Pocket
Toquart	39: Toquart	Intermediate	14: Barkley Sound	

Appendix 1: Planning Priorities

The following planning priorities reflect current agency commitments and stakeholder expectations. The are, however, subject to change, based on the availability of funding and resources.

A: Planning Priority For Regional Landscape Units

Landscape Units	RMZ No. & Name (Refer to Map)	Biodiversity Emphasis	SMZs Within LU Boundaries	Protected Areas within LU Boundaries
High Planning Priority				
Adam-Eve	28: Adam and Eve	Lower		Schoen Lake
Artlish	17: Artlish-Kaouk	Intermediate		Artlish Caves
Ash	35: Ash-Central Sproat	Intermediate		Strathcona
Bonanza	11: Bonanza	Intermediate	7: Johnstone Strait	
Caycuse	46: Gordon-Caycuse-San Juan	Intermediate		Pacific Rim National
Chemainus	34: E&N South	Intermediate		Chemainus
Cowichan	34: E&N South	Lower		Gordon Bay, Cowichan River Corridor
Effingham	38: Effingham		14: Barkley Sound	
Englishman	34: E&N South	Intermediate		Englishman River Falls Rathtrevor
Escalante	25: Escalante	Lower		
Great Central	35: Ash-Central Sproat	Intermediate	17: Strathcona-Taylor	Strathcona
Kashutl	14: Kashutl	Lower	5: South Brooks-Bunsby	Brooks Nasparti Big Bunsby, Dixie Cove
Klaskish	9: Klaskish	Higher	3: Brooks Bay	
Loss	47: Loss-Jordan	Lower	22: San Juan Ridge	China Beach, Loss Creek Botanical Beach, Parkinson Creek
Marble	7: Marble	Intermediate		
Nahwitti	3: Nahwitti-Tsulquate	Intermediate		
Nootka	20: Nootka	Intermediate	12: Western Nootka Island	Nuchatlitz, Santa Boca
Quadra	32: Quadra-Cortes	Intermediate	19: Quadra	Main Lakes Chain Octopus Island Waiatt Bay-Small Inlet Rebecca Spit
Rosewall	34: E&N South	Intermediate	20: Upper Qualicum	Rosewall Creek, Bowser, Horne Lake Caves Spider lakes
Salmon	30: Salmon	Lower		Strathcona
San Josef	4: San Josef-Koprino	Intermediate	2: West Coast Nahwitti Lowlands 4: Koprino	Cape Scott
Sayward	31: Sayward	Intermediate		Rock Bay Marine, Elk Falls Loveland Bay, Morton Lake
Shushartie	2: Shushartie	Higher	1: Goletas Channel	God's Pocket
Toquart	39: Toquart	Intermediate	14: Barkley Sound	

Planning Priorities for Regional Landscape Units cont...

Landscape Units	RMZ No. & Name (Refer to Map)	Biodiversity Emphasis	SMZs Within LU Boundaries	Protected Areas within LU Boundaries
[illegible]				
Tsitika	26: Tsitika	Higher	8: Tsitika River 9: Tsitika-Woss	Robson Bight Claude Elliot Lake Claude Elliott Creek Mount Elliott , Tsitika River
Tugwell	47: Loss-Jordan	Lower	22: San Juan Ridge	French Beach
Upper Nimpkish	13: Woss-Vernon	Intermediate	6: Woss-Zeballos 9: Tsitika-Woss 11: Schoen-Strathcona	Woss Lake Schoen Lake
White	29: White	Higher	11. Schoen-Strathcona	White River Pocket Wilderness
[illegible]				
Burman	24: Burman	Lower		Strathcona
Corrigan	42: Corrigan	Intermediate	18: Alberni Canal	
Gold	22: Gold	Higher	11: Schoen Strathcona	Muchalat-Gold Strathcona, White Ridge
Gordon	46: Gordon-Caycuse-San Juan	Intermediate		Pacific Rim National
Kaouk	17: Artlish-Kaouk	Intermediate		Rugged Point
Keogh	6: Keogh-Cluxewe	Lower		
Kleeptee	23: Kleeptee	Lower		
Lower Nimpkish	10: Nimpkish	Lower	10: Pinder-Atluck	
Mahatta	8: Mahatta-Neroutsos	Lower	3: Brooks Bay	
Malcolm	12: Malcolm	Lower		
Naka	27: Naka	Lower		Robson Bight
Nanaimo	34: E&N South	Intermediate		Hemer, Roberts Memorial Petroglyph, Ladysmith Bog Woodley Range, Haley Lake
Nitinat	45: Nitinat	Intermediate		Pacific Rim National
San Juan	46: Gordon-Caycuse-San Juan	Intermediate	22: San Juan Ridge	San Juan River Estuary
Sproat	35: Ash-Central Sproat	Intermediate	17: Strathcona-Taylor	Sproat Lake, Taylor Arm Fosselli
Tahsis	19: Tahsis	Lower		Weymer Creek, Karst
Tahsish	15: Tahsish	Intermediate		Tahsish-Kwois
Tlupana	21: Tlupana	Intermediate		
Walbran	46: Gordon-Caycuse-San Juan	Intermediate	21: Walbran Periphery	Pacific Rim National Carmanah Walbran
Zeballos	16: Zeballos	Lower	6: Woss-Zeballos	
[illegible]				
Cameron	41: Cameron-China	Intermediate		MacMillan
China	41: Cameron-China	Intermediate		China Creek
Cous	36: Cous	Lower	18: Alberni Canal	
Eliza	18: Eliza	Lower		Catala Island

Landscape Units	RMZ No. & Name (Refer to Map)	Biodiversity Emphasis	SMZs Within LU Boundaries	Protected Areas within LU Boundaries
LOW PLANNING PRIORITY CONT.				
French Creek	34: E&N South	Lower		
Henderson	37: Henderson	Lower	14: Barkley Sound 18: Alberni Canal	
Holberg	5: Holberg	Lower		
Klanawa	44: Klanawa	Intermediate		Pacific Rim National Oxalis
Koksilah	34: E&N South	Lower		Angel, Koksilah
Little Qualicum	34: E&N South	Intermediate		Little Qualicum Fall McMillan, Mt. Arrowsmith
Maggie	40: Maggie	Lower		Pacific Rim National
Millstone	34: E&N South	Lower		Newcastle Island
Nahmint	N/A	Higher	13: Nahmint	
Nanoose	34: E&N South	Intermediate		Arbutus Grove
Neroutsos	8: Mahatta-Neroutsos	Lower		
Nigei	1: Nigei	Lower		
Oyster	33: E&N North	Lower		Strathcona
Puntledge	33: E&N North	Lower		Strathcona
Quinsam	33: E&N North	Lower		Rock Bay Marine, Elk Falls
Sarita	43: Sarita	Lower	18: Alberni Canal	Pacific Rim National
Shawnigan	34: E&N South	Lower		
Simms	33: E&N North	Lower		
Somass	34: E&N South	Intermediate		
Sooke	34: E&N South	Lower		Sooke Mountain
Trent	33: E&N North	Lower		
Tsolum	33: E&N North	Lower		Miracle Beach
Tsulquate	3: Nahwitti-Tsulquate	Intermediate		
Victoria/ Saanich	34: E&N South	Lower		Goldstream

Notes:

- SMZs falling partially or entirely within a Landscape Unit may be planned concurrently with that Landscape Unit.
- Protected Areas falling partially or entirely within a Landscape Unit will contribute to the achievement of seral stage biodiversity objectives and targets. Note that this is for calculation purposes only; no landscape unit planning will occur within Protected Areas.

Planning Priorities for Regional Landscape Units cont...

Landscape Units	RMZ No. & Name (Refer to Map)	Biodiversity Emphasis	SMZs Within LU Boundaries	Protected Areas within LU Boundaries
HIGH PLANNING PRIORITY				
Tsitika	26: Tsitika	Higher	8: Tsitika River 9: Tsitika-Woss	Robson Bight Claude Elliot Lake Claude Elliott Creek Mount Elliott , Tsitika River
Tugwell	47: Loss-Jordan	Lower	22: San Juan Ridge	French Beach
Upper Nimpkish	13: Woss-Vernon	Intermediate	6: Woss-Zeballos 9: Tsitika-Woss 11: Schoen-Strathcona	Woss Lake Schoen Lake
White	29: White	Higher	11. Schoen-Strathcona	White River Pocket Wilderness
MODERATE PLANNING PRIORITY				
Burman	24: Burman	Lower		Strathcona
Corrigan	42: Corrigan	Intermediate	18: Alberni Canal	
Gold	22: Gold	Higher	11: Schoen Strathcona	Muchalat-Gold Strathcona, White Ridge
Gordon	46: Gordon-Caycuse-San Juan	Intermediate		Pacific Rim National
Kaouk	17: Artlish-Kaouk	Intermediate		Rugged Point
Keogh	6: Keogh-Cluxewe	Lower		
Kleeptee	23: Kleeptee	Lower		
Lower Nimpkish	10: Nimpkish	Lower	10: Pinder-Atluck	
Mahatta	8: Mahatta-Neroutsos	Lower	3: Brooks Bay	
Malcolm	12: Malcolm	Lower		
Naka	27: Naka	Lower		Robson Bight
Nanaimo	34: E&N South	Intermediate		Hemer, Roberts Memorial Petroglyph, Ladysmith Bog Woodley Range, Haley Lake
Nitinat	45: Nitinat	Intermediate		Pacific Rim National
San Juan	46: Gordon-Caycuse-San Juan	Intermediate	22: San Juan Ridge	San Juan River Estuary
Sproat	35: Ash-Central Sproat	Intermediate	17: Strathcona-Taylor	Sproat Lake, Taylor Arm Fosselli
Tahsis	19: Tahsis	Lower		Weymer Creek, Karst
Tahsish	15: Tahsish	Intermediate		Tahsish-Kwois
Tlupana	21: Tlupana	Intermediate		
Walbran	46: Gordon-Caycuse-San Juan	Intermediate	21: Walbran Periphery	Pacific Rim National Carmanah Walbran
Zeballos	16: Zeballos	Lower	6: Woss-Zeballos	
LOW PLANNING PRIORITY				
Cameron	41: Cameron-China	Intermediate		MacMillan
China	41: Cameron-China	Intermediate		China Creek
Cous	36: Cous	Lower	18: Alberni Canal	
Eliza	18: Eliza	Lower		Catala Island

Landscape Units	RMZ No. & Name (Refer to Map)	Biodiversity Emphasis	SMZs Within LU Boundaries	Protected Areas within LU Boundaries
LOW PLANNING PRIORITY CONT.				
French Creek	34: E&N South	Lower		
Henderson	37: Henderson	Lower	14: Barkley Sound 18: Alberni Canal	
Holberg	5: Holberg	Lower		
Klanawa	44: Klanawa	Intermediate		Pacific Rim National Oxalis
Koksilah	34: E&N South	Lower		Angel, Koksilah
Little Qualicum	34: E&N South	Intermediate		Little Qualicum Fall McMillan, Mt. Arrowsmith
Maggie	40: Maggie	Lower		Pacific Rim National
Millstone	34: E&N South	Lower		Newcastle Island
Nahmint	N/A	Higher	13: Nahmint	
Nanoose	34: E&N South	Intermediate		Arbutus Grove
Neroutsos	8: Mahatta-Neroutsos	Lower		
Nigei	1: Nigei	Lower		
Oyster	33: E&N North	Lower		Strathcona
Puntledge	33: E&N North	Lower		Strathcona
Quinsam	33: E&N North	Lower		Rock Bay Marine, Elk Falls
Sarita	43: Sarita	Lower	18: Alberni Canal	Pacific Rim National
Shawnigan	34: E&N South	Lower		
Simms	33: E&N North	Lower		
Somass	34: E&N South	Intermediate		
Sooke	34: E&N South	Lower		Sooke Mountain
Trent	33: E&N North	Lower		
Tsolum	33: E&N North	Lower		Miracle Beach
Tsulquate	3: Nahwitti-Tsulquate	Intermediate		
Victoria/ Saanich	34: E&N South	Lower		Goldstream

Notes:

- SMZs falling partially or entirely within a Landscape Unit may be planned concurrently with that Landscape Unit.
- Protected Areas falling partially or entirely within a Landscape Unit will contribute to the achievement of seral stage biodiversity objectives and targets. Note that this is for calculation purposes only; no landscape unit planning will occur within Protected Areas.

B. [illegible] Priority For Special Management Zones

SMZ (No. & Name)	Rationale for Priority	Major Planning Issues & Needs
[illegible]		
1. Goletas Channel	No pending development; extensive inventory gaps currently exist, North Coast Trail location and concept needs to be determined in advance	• specific visual quality and recreation objectives • recreation and tourism development opportunities • access to private land timber • integrate coastal planning and upland activities • Browning Passage - God's Pocket protected area values • reflect North Coast Trail in forest planning
3. Brooks Bay	Plan underway for Lower Klaskish-East Creek; need to finalize; development applications pending and high public profile	• specific visual quality and biodiversity objectives • coordination of recreation, park and ecological reserve planning • Klaskish - East Creek Operational Management Plan
4. Koprino	Major pending development applications; major timber supply area for licensee	• specific biodiversity objectives specific wildlife objectives • old growth retention and connectivity planning
8. Tsitika River	Need decision on SMZ requirements to finalize/endorse current Tsitika plan Pending development applications	• specific biodiversity objectives • MOF Tsitika River Plan • wildlife inventories • connectivity and OGMA designation
11. Schoen-Strathcona	and significant timber supply and environmental issues; community forest licence	• specific visual quality, recreation & biodiversity objectives • high fish values in upper reaches of Gold and White Rivers and Consort Creek • old growth retention and wildlife habitat enhancement
12. Western Nootka Island	Significant recreation/tourism development applications; pending development applications; First Nations community forest licence	• specific coastal wildlife and visual quality objectives • road access and recreation development pressures • coordination of recreation, tourism and park planning • establish VQOs
13. Nahmint	Major operating area with significant timber supply constraints	• specific biodiversity and wildlife objectives • follow-up to watershed review and resource mapping • First Nations use • focus on OGMA designation, and recreation and visual resource management • First Nations Traditional Use
19. Quadra Island	TFL management plan under review; local inventory and planning initiatives; high local profile	• specify visual quality, recreation and wildlife objectives • alternative silviculture systems • mineral exploration and access development
20. Upper Qualicum	1 block small business planned; planning focus on enhanced forestry program	• specify biodiversity objectives • coordination with private land forestry • focus on demonstration of alternative silvicultural practices

SMZ (No. & Name)	Rationale for Priority	Major Planning Issues & Needs
High Planning Priority (cont.)		
21. Walbran Periphery	Pending development applications and concern about SMZ impacts on rate of cut elsewhere; high public profile	• specify fish habitat, biodiversity and recreation objectives • alternative silviculture systems • focus on old growth retention, WHA designation and visual resources
Moderate Planning Priority		
2. West Coast Nahwitti Lowlands	Major pending forest development applications; high recreation values; major timber supply area for licensee	• specific recreation and habitat protection objectives • recreation and tourism development opportunities • coastal tourism and recreation in Grant Bay - San Josef Bay • landscape unit plans & WFP Forest Development Plan
5. South Brooks-Bunsby	Local community economic concerns; high demand for woodlots; tourism and recreation pressures in the area	• specific recreation and marine species objectives • recreation/tourism development • establish visual quality objectives (VQOs)
7. Johnstone Strait	No immediate impacts on visual resources; need to determine recreational trail concept and to resolve access and visual issues	• specific visual quality objectives • access to timber • establish VQOs • M&B Forest Development Plan
9. Tsitika-Woss	Need to finalize/endorse current Tsitika plan	• specific visual quality and recreation objectives • biodiversity strategy and restoration of habitats • OGMA designation • Address SMZ objectives in TFL management plan
14. Barkley Sound	Small business development applications; tourism and recreation growth and development pressures	• specific visual quality objectives • recreation development & uses • archaeological sites protection • shellfish aquaculture potential • implement Barkley Sound Planning Strategy
17. Strathcona-Taylor	Significant harvesting proposed; various operational plans affected by SMZ requirements	• specify biodiversity objectives • recreation opportunities and planning • First Nations traditional use • mineral exploration and development access • focus on OGMA and WHA designation
22. San Juan Ridge	No major harvesting constraints; need to adjust SMZ boundary; high public profile	• specify visual quality and recreation objectives • examine trail width requirements • plan for hiking trail development and use

Planning Priorities for Special Management Zones cont...

SMZ (No. & Name)	Rationale for Priority	Major Planning Issues & Needs
[illegible]		
6. Woss-Zeballos	Only 1 block currently proposed for harvesting; relatively low conflict area	• specific biodiversity and visual quality objectives • road and access planning • coordination of licensees • establish visual quality objectives (VQOs) • plan for recreation associated with lakes and trails
10. Pinder-Atluck	Recreation and visual concerns	• specific visual quality and recreation objectives • focus on old growth retention & recreation/visual management
15. Tofino Mudflats	Waterfowl management issues; long term habitat protection objective	• waterfowl uses & capability • shellfish aquaculture uses
16. Saanich Inlet	Ongoing implementation of Saanich Inlet study	• water quality & pollution • recreation access to shoreline • implement 1996 Saanich Inlet Study
18. Alberni Canal	General need to establish visual landscape objectives at an operational level	• specify visual quality objectives

C: Planning Priority For Coastal Planning Units

CPU (No. & Name)	Rationale for Priority	Planning Issues & Needs
High Planning Priority		
6. Quadra/ Cortes Strait	• very high usage, potential conflict over resource use in specific areas • high level of public interest in planning • 277 tenures recorded in this area	• Recreational opportunities dependent on access to shoreline features • Bird wintering areas to be identified • Mining dependent on infrastructure development
8. Baynes Sound	• majority of shellfish aquaculture in this unit; concerns regarding existing water quality • high recreation use • 102 tenures including 62 shellfish, 5 log handling and storage, interest in tourism	• need to consider Regional District's Baynes Sound Plan • maintenance of water quality critical to both shellfish aquaculture and recreational opportunities • numerous cultural heritage sites
15. Nootka Sound and Associated Waterways	• SMZ/LU pilot project on Nootka Island contains significant marine component • 62 tenures recorded in area including 34 log handling and storage sites, 5 shellfish aquaculture sites	
17. Esperanza Inlet	• adjacent to northern portion of Nootka Island; SMZ/LU pilot project on Nootka Island contains significant marine component • CPU surrounds 2 provincial parks • 37 tenures recorded in this area including 12 log handling and storage sites and 7 aquaculture sites	• need to consider Regional District's Nootka Rural Land Use Bylaw • integration of confidential First Nations cultural and traditional use sites • Boat havens recommended by BC Yacht Club • Identification and management of areas critical to marine ecosystem functioning
18. Kyuquot Sound	• adjacent to moderate priority SMZ (South Brooks- Bunsby) containing a marine component. • upland LUs rated as low priority for planning • expanding development and use conflicts anticipated • 31 tenures recorded including 20 log handling and storage sites and 5 aquaculture sites	• potential siting issues for finfish aquaculture • Boat havens recommended by BC Yacht Club • Identification and management of areas critical to marine ecosystem functioning • Development sensitivity of First Nations values and uses
20. Quatsino Sound	• adjacent to moderate and high priority SMZs (Brooks Bay and West Coast Nahwitti Lowlands) and LUs • 69 tenures including 35 log handling and storage sites and 6 finfish aquaculture tenures	• significant marine biota concentrations: implications for harvesting and conservation • high potential for aquaculture • Boat havens recommended by BC Yacht Club

Planning Priorities for Coastal Planning Units cont...

CPU (No. & Name)	Rationale for Priority	Planning Issues & Needs
2. Northwest Coast (Lawn Point - Hope Island)	• only land as yet unzoned is adjacent to a moderate priority SMZ • no tenures recorded in area • includes offshore oil and gas tenures under moratorium	• significant portions of adjacent upland dedicated to recreational activities • consider recommendations of North Vancouver Island Recreation and Tourism study
3. Queen Charlotte Strait	• significant coastal SMZ component. SMZ is rated as a high priority • 3 tenures recorded in area	• majority of adjacent uplands dedicated to recreation and conservation: Cape Scott Park
4. Southern Queen Charlotte Strait and Broughton Strait West	• populated coastline and island communities • recreation use and tourism activity • 74 tenures recorded including log handling, aquaculture and infrastructure	• opportunities for coastal oriented recreation and tourism • Sensitivity for First Nations traditional use and cultural heritage sites
7. Cape Mudge/ Cape Lazo	• populated coastline with attendant expectations and impacts • high recreation use • 20 tenures recorded	• consider Regional District's Oyster Bay-Buttle Lake Official Community Plan Bylaw • critical marine bird feeding areas • recreation opportunities
9. Strait of Georgia to Cowichan Bay	• populated coastline with attendant expectations and impacts • heavy usage: 273 tenures recorded including 20 aquaculture tenures, 35 log handling and storage sites, 94 private and residential moorages	• consider Regional District's Growth Management Plan • water quality of concern for recreational, aquaculture and wildlife values • high fish and wildlife values
10. East Saanich Inlet to Race Rocks	• heavily populated coastline with attendant expectations and impacts • adjacent to a low priority marine SMZ (Saanich Inlet) water quality concerns • limited resource development anticipated; 291 tenures recorded of which 234 are marinas, private moorages and residential miscellaneous	• consider extensive planning already completed • water quality at issue for tourism resource • highly developed uplands adjacent to zone
11. Race Rocks to Cape Beale	• heavily populated coastline with attendant expectations and impacts • diverse resource usage - 129 tenures recorded in area including 81 private residential, 17 log handling and storage • tourism and visual implications due to adjacent Pacific Rim National Park and West Coast Trail	• consider Regional District's Regional Green/Blue Spaces Strategy • significant marine fish and wildlife

CPU (No. & Name)	Rationale for Priority	Planning Issues & Needs
MODERATE PLANNING PRIORITY CONT.		
12. Alberni Inlet	• subject of Barkley Sound Planning Strategy - planning could be limited to review and updating of Strategy's recommendations • 10 tenures including 6 aquaculture tenures	• consider Barkley Sound Planning Strategy • future mining operations may require infrastructure development
13. Barkley Sound	• subject of Barkley Sound Planning Strategy - planning could be limited to review and updating of Strategy's recommendations • adjacent to Barkley Sound SMZ (large marine component) • 125 tenures recorded including 21 general commercial, 52 private moorage, 11 log handling and storage sites and 8 shellfish aquaculture sites	• consider Barkley Sound Planning Strategy • high recreational and tourism values • high aquaculture potential • sensitivity for First Nations traditional use and cultural heritage sites
19. Brooks Peninsula Approaches	• adjacent to protected uplands and high priority SMZ (Brooks Bay) which contains a significant marine component • significant wildlife values throughout area • no tenures recorded in this area	• address confidential First Nations information regarding cultural heritage and traditional use sites • Council of BC Yacht Clubs proposes two boat havens • Majority of adjacent uplands is protected
LOW PLANNING PRIORITY		
1. Lanz-Cox Islands	• little activity, all land adjoining CPU is protected area • includes offshore oil and gas tenures under moratorium	• limited opportunities for accessibility due to remoteness, permit requirements
5. Johnstone Strait	• high use travel corridor • Wildlife habitat issues in vicinity of Robson Bight • 14 tenures recorded including 7 for log handling and storage	• preservation of visual quality • areas of cultural heritage site concentrations • significant marine fish resources
14. Barkley Sound Outer Coast	• no land adjacency issues • no tenures recorded in this area • Could be coupled with Barkley Sound for planning purposes	• limited development opportunities with existing technologies • important area for marine fish and wildlife migrations
16. Nootka, Kyuquot and Esperanza Sound Approaches	• SMZ/LU pilot project on Nootka Island contains significant marine component adjacent to CPU • majority of unit located offshore with limited potential for development • no tenures recorded in this area	• consider implications of Regional District's Nootka Sound Rural Land Use Bylaw

D: Planning Priority For Protected Areas

Protected Area	Status of Designation[1]	Status of Public Review
Management Plans Complete		
Haley Lake	ER	Plan completed 1995
Draft Management Direction Statements Completed		
Carmanah Walbran (includes Walbran, Upper Carmanah)	Park	Final plan due for approval: 2000/2001
Somenos Garry Oaks	Purchased by Crown (portion only)	Final plan due for approval: 2000/2001
Niagara Creek (exchange with CRD)	Regional park (not included in PAS)	Final plan due for approval 99/2000
Cowichan River	Under negotiation	Final plan due for approval 2001/2002
Chemainus River	Private portion under negotiation	Final statement due for approval: 2000/2001
Ladysmith Bog	ER	Final statement due for approval: 2000/2001
Nitinat River	Crown portion: Park	Final statement due for approval: 2000/2001
Klanawa River	ER	Final statement due for approval: 2000/2001
Woodley Range	ER	Final statement due for approval: 2000/2001
Hudson Rocks	ER	Final statement due for initiation: 2000/2001
Nimpkish Lake	Park	Preliminary review complete
Lower Nimpkish River	Park	Preliminary review complete
Misty Lake	ER; addition under negotiation	Preliminary review complete
Quatsino	Park	Preliminary review complete
Marble River	Park	Preliminary review complete
Artlish Caves	Park	Preliminary review ongoing
Weymer Creek	Park	Preliminary review ongoing
Hitchie Creek	Park	Final statement due for initiation: 2001/2002
Management Plans Under Development		
Cape Scott - including Lanz-Cox Islands and Nahwitti-Shushartie	Park	Preliminary review ongoing
Strathcona Review - including Megin Talbot, McBride Creek, and Divers Lake	Park Purchased	5-year review of 1992 Master Plan ongoing
Bligh-Santa Boca	Park	Public review scheduled to commence in 2000

1 Status current as of January 2000

High Priorty for Management Plan Development
Cave/Karst protected areas including:
White Ridge
Artlish Caves
Weymer Creek
Horne Lake Caves
Tahsish Kwois
Clayoquot Sound protected areas including:
Upper Shelter Inlet
Sydney Inlet
Hesquiat Peninsula and Trail
Flores Island
Vargas Island
Clayoquot Arm/Clayoquot Lake
Clayoquot Plateau
Dunlap and Morfee Islands
Dawley Passage and Lane Islet
Kennedy River Bog
Kennedy Lake
Tranquil Creek Headwaters
Hesquait Lake
Woss Lake
Brooks/Checleset/Big Bunsby
Robson Bight/Broughton
Nuchatlitz/Catala
Gold-Muchalat

Moderate Priorty for Management Direction Statement Development
Main Lakes (private land under negotiation)
Small Inlet (private land under negotiation)
Octopus Islands (no action)
Surge Narrows
Dixie Cove
White River
God's Pocket
Claud Elliot Lake
Comox Lake Bluffs
Read Island
Rock Bay

Other Areas
Bright Angel Addition - Being transferred to local government for park purposes
San Juan River Estuary - Land acquisition not finalized
Stamp River, Money's Pool
Carrington Bay (Regional District transfer) - First Nations consultation underway
Little Mountain - First Nations consultation underway
Morison Creek - First Nations consultation underway
Seal Bay - First Nations consultation underway
Somass River Estuary - Under negotiation
Mesachie Lake - Private - no action to date
Notch - Private - no action to date
Puntledge River Fossil Beds - Private - no action to date

Appendix 2: Special Management Zone Development Review Process

Step 1. Draft Plans or Applications Received And Assessed

Lead Agency Actions:

- Conduct preliminary check for consistency with applicable legislation, regulations, standards, objectives and guidelines
- Consult with proponent (applicant) as necessary

Step 2. Inter-Agency Referral And Review

Lead Agency Actions:

- Provide a deadline for review completion based upon plan/ application complexity, etc. and in consultation with other agencies
- Inform proponent of the timelines
- Refer plan/application to other agencies
- Initiate appropriate First Nations consultation
- Initiate review of plan, and consider applicable regulations, standards, objectives and guidelines including VILUP and higher level plans when reviewing plan or application
- Identify specific recreation, cultural/historic and natural values associated with proposal area specifying sensitivity to potential development

Participating Agencies:

- Agencies to consider applicable regulations, standards, objectives and guidelines including VILUP and higher level plans when reviewing plan or application.
- Identify specific recreation, cultural/historic and natural values associated with proposal area specifying sensitivity to potential development.
- Provide advice back to lead agency.

Step 3. Plan/Proposal Evaluation and Revision

Lead Agency Actions:

- Evaluate responses and public comment[2] where applicable.
- Guide proponent in making appropriate revisions to plan or application to satisfy issues identified
- Summarize input received through initial referral and any resulting adaptations of the plan or proposal
- Complete First Nations consultation

Step 4. Agency Level Sign-off

Lead Agency Actions:

- MoF District Manager and MELP Designated Environment Official approve forest development plans.
- Once referrals and other standards are satisfied, non-forest development proposals and plans should be authorized at the regional level
- For non-forest development proposals, refer to IAMC if outstanding inter-agency issues remain after operational level review; otherwise proceed to Step 6

Step 5. IAMC Review

IAMC

- The IAMC is a vehicle for facilitating the resolution of issues that cannot otherwise be resolved directly between agencies or at a regional level, including:
  - ❑ Ensuring that all relevant agencies have been involved, all relevant objectives and resource values have been considered
  - ❑ Consulting further with proponents, First Nations and appropriate NGOs where appropriate
  - ❑ Providing direction for resolving residual uncertainties regarding objectives and values following operational review
  - ❑ Resolving outstanding issues
- Plans, applications and supporting documents that are reviewed within SMZs will be documented by sponsoring agencies for annual plan implementation report

Step 6. Preparation of Authorization and Permit Documents

Lead Agency Actions:

- Prepare the necessary authorization and permit documents and provide these to the proponent without delay

Note:

* IAMC is involved in resolving outstanding issues and processing any such development plans or proposals expeditiously.
* Upon receipt of plans or proposals referred from the agency level, the IAMC Chair shall immediately determine the most effective means of expediting a resolution and shall take the appropriate actions without delay. Actions may include ad hoc sub-committees and communications technology to expedite a resolution prior to a formal IAMC meeting.

2 For forest development plans, the proponent is required by law to publish a notice, and provide public review and comment opportunity.

Appendix 3: Planning Framework Statements For Special Management Zones

The following Planning Framework Statements (PFS) were compiled on initiative by the Vancouver Island Interagency Management Committee, following a recommendation in the Low Intensity Area report. For each individual Special Management Zone, the PFS present a synopsis of primary resource values, planning issues as identified by the public, stakeholders, interest groups and agencies, as well as information on suggested planning needs, inventories and tenure information. The PFS do not constitute planning direction; rather, they represent a compendium of information, which may be useful in subsequent local planning processes.

1. Goletas Channel

Primary SMZ Values

- coastal visual and recreational opportunities
- fish habitats (lower Shushartie, Songhees rivers)
- wildlife habitats (deer/elk wintering ranges: lower Shushartie River; coastal waterfowl habitat)
- Shushartie River recreational access route

Priority: High

Planning Issues

- visual objectives are unclear; more detailed parameters are needed
- ORC suggested viewpoints for visual analysis: coastline, north coast trail, Georgie Lake
- Shushartie River is potential wilderness route for the proposed North Island Trail; integrate planning with adjacent Cape Scott Provincial Park with respect to trail linkages
- good recreational opportunity in Shushartie Lake areas adjacent to Cape Scott (Nahwitti-Shushartie Addition) Provincial Park; little current recreation; some fly-in angling in lower reaches
- Richply has proposed development of north coast trail, and First Nations tourism development services and facilities for hikers and kyakers
- public interest group comments:
  - future logging plans around Shushartie Lake will have major impact on wilderness recreation values
  - ensure that logging is evenly distributed among height class and species distribution; licensees must be made to include height class 3 cedar in cutblocks
  - avoid shallow soils
  - wind throw is serious concern
  - proposed North Island Trail should begin at Shushartie Lake
  - ensure the maintenance of fish & wildlife habitat, old growth biodiversity, and recreational opportunities
  - road access to trail requires planning
- M&B require access through the SMZ to reach their private land
- Richmond Plywood small licence (70,000 m3) unable to support detailed inventories
- two active fish farms and additional applications anticipated, posing potential visual concerns
- Richply has proposed a trail linking Shushartie Lake to the inlet, intended to limit angling and camping access to semi-privatized non-motorized use
- CWS Marine Protected Area candidate area of international/national significance to marine birds and cetaceans
- integration with planning for Cape Scott Provincial Park and God's Pocket Marine Park to meet goals and objectives of PAS
- examine the inclusion of the upper Shushartie River to height of land and Georgie Lake to include high recreation values, including trail route and important old growth biodiversity functions

Planning Needs

- integrated coastal planning required to address marine resource values
- landscape unit plans, including consideration of proposed North Island Trail and coastal visual, recreation and tourism opportunities
- conduct fish and wildlife habitat and population inventories
- conduct inventory on recreational opportunities and viewscapes

Existing Inventories, Plans and Studies

- reconnaissance survey of fisheries resource in 1993 by MELP (Scholten & Chamberlain)
- socio-economic study of proposed North Coast Trail (George Penfold, consultant)
- mineral potential and mineral inventory (MINFILE)

Goletas Channel cont...

Key Resource Information Gaps

- no detailed wildlife inventories in the area
- insufficient visual landscape and tourism assessment
- tourism opportunity studies
- lack of inventory information within Browning Passage and God's Pocket Marine Park

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[3]

Crown land	99%
Private land	1%

Tourism potential - high capability for coastal and marine activities

Crown reserve	no
Mineral tenures	no
Tree Farm Licence	no
Timber Licences	no
Community watershed	no
Private forest lands	1%
Archaeology potential	
- unproven	30%
- moderate	1%
- potential	10%

Land and Resource Tenures[4]

- 2 Forest Licences - Richmond Plywood FL A19243; SBFEP, Interfor FLA 19238 (small area)
- 2 Fish farms
- anticipated marine plant harvesting licence: Kwakiutal Band to harvest Nereocystis for fertilizer product

Other Stakeholders/Interest Groups

- First Nations traditional territories unclear
- Anchor Seafarms
- tourism businesses and operators
- Mount Waddington Community Resource Board
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:

3, 4, 5, 6, 9, 12, 13, 16

2. West Coast Nahwitti Lowlands

Primary SMZ Values

- scenic values, as visible from coastal areas and access routes
- cultural/heritage (archaeological) values
- sensitive coastal fish and wildlife habitats
- coastal recreation values and opportunities

Priority: Moderate

Planning Issues

- ORC suggested viewpoints for visual analysis: coastline to visible height of land San Josef Bay to Lippy Point; eastern portion - local study required
- public interest group comments:
  - present level of logging too high
  - maintain viewscape from adjacent park
  - general biodiversity conservation management recommended
  - ensure that development does not impact upon recreation opportunities
- pending forest development applications by WFP (12 blocks in SMZ # 2 and 4)
- recognize mineral values and the likelihood of future exploration
- need to consider protected areas' values, goals and objectives
- three sub-zones proposed by WFP: coastal protected strip (recreation and conservation emphasis), sensitive viewscape zone (visual emphasis) and regular FPC zone (modified forest development emphasis) - see map
- area recreation planning must be coordinated with BC Parks' plans for Raft Cove Provincial Park and Cape Scott Provincial Park, recreation corridor on Mack Jack River and MOF/WFP recreation sites
- major recreation opportunities at beaches and rocky headlands from Raft Cove to Grant Bay, and from Cape Scott
- trail development potential (>30km) under study by WFP
- need to clarify coastal recreation and marine species objectives/concerns
- WFP proposes visual objectives limited to marine access routes and questions habitat sensitivity along Awhichaolto and Forward Inlets and between Cliffe Point and Monkey Creek

Planning Needs

- preparation of a coastal recreation/tourism plan that connects Grant Bay with San Josef Bay in Cape Scott Park
- landscape unit plans and WFP Forest Development Plan
- suggested planning unit: 1000m inland for coastal recreation plan, and approved landscape units

3 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included
4 no information on mineral or other tenures; occurrence of mineral tenure is noted from LUCO maps

- conduct inventory on recreational opportunities and viewscapes
- conduct inventory of fish and wildlife habitat and populations
- complete cultural heritage inventory

Existing Inventories, Plans and Studies

- recreation: inventory updated in 1994
- landscape: inventory completed in 1994
- wildlife: 1:50,000 overview to be completed by October 1996 (Blood & Associates)
- cultural: MOF overview for Port McNeill Forest District; detailed inventories completed on a cut block basis where areas are considered high or moderate potential
- recreation analysis of coastal recreation corridor (being completed by WFP)
- mineral potential and mineral inventory (MINFILE)

Key Resource Information Gaps

- detailed recreation assessment with BC Parks
- detailed tourism resource inventory and opportunity study
- biodiversity/FEN strategy

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[5]

Crown land	99%
Tourism potential - significant opportunities for coastal tourism activities and resort or lodge development	
Private land	1%
Crown reserve	25%
Mineral tenures	no
Tree Farm Licence	99%
Timber Licences	1%
Community watershed	no
Private forest lands	<1%
Archaeology potential	
- unproven	50%
- moderate	20%
- potential	30%

Land and Resource Tenures

- Western Forest Products TFL 6

Other Stakeholders/Interest Groups

- Villages of Winter Harbour and Holberg
- Quatsino Nation
- Tourism businesses and operators
- Mount Waddington Community Resource Board
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:

1, 3, 5, 6, 7, 8, 11, 13, 16

3. Brooks Bay

Primary SMZ Values

- visual quality, as viewed from coastal areas, and associated recreation opportunities
- fisheries values in anadromous fish streams and estuary fish rearing habitats
- populations and habitat of marine endangered/threatened species

Priority: High

Planning Issues

- need to clarify the marine species concerns
- impact of boaters mooring in Brooks Bay
- tourism/recreation access management plan
- marbled murrelet in Klaskish River-East Creek (terrestrial) and Brooks Bay (foraging)
- high steelhead values in Klaskish and East Creek systems
- ORC suggested viewpoints for visual analysis: coastline Cliff Pt. to Lawn Pt., Heater Pt. to & including Klaskish Inlet
- public interest group comments:
  - public interest groups have been refused participation in Klaskish-East Creek Planning Group
  - intact watersheds have special planning needs
  - Klaskish-East Creek be designated high emphasis for biodiversity
  - maintain viewscapes visible from the park and from the water
- a priority is rehabilitation of Red Stripe Mtn., Side Bay and Klaskino Inlet
  - additional objectives: maintaining/protecting ecological integrity, viewscape and tourism opportunities for Brooks Peninsula Prov. Park and integrating planning for park with Klaskish Inlet
  - reject COMP as it does not qualify as a higher level plan
  - ensure the protection of fish and wildlife habitats, old growth biodiversity, and recreational opportunities
  - immediately conduct a rate of cut assessment for SMZ

5 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Brooks Bay cont...

- Sierra Club proposes zone should include East and Klaskish Creeks to height of land; exclude Redstripe Mtn.
- recognize mineral values and the likelihood of future exploration
- impact of access on Klaskish Ecological Reserve
- need to consider values, goals and objectives of adjacent protected areas
- look at excluding inner Brooks Bay from SMZ

Planning Needs

- completion and implementation of Klaskish - East Creek Coordinated Operational Management Plan (COMP)
- recreation access management plan
- conduct inventory of fish and marine wildlife habitat and populations
- conduct inventory on recreational opportunities and viewscapes
- Suggested planning unit: Klaskish-East Creek COMP area and other landscape units

Existing Inventories, Plans and Studies

- COMP - folio mapping and studies underway, leading to a plan for the watershed; current themes available in digitized form from MOF:
  - forest cover
  - licensee tenure
  - mineral information
  - road network (proposed)
  - CWAP terrain stability
  - recreation inventory
  - drainage
  - operability
  - biogeoclimatic classification
  - fisheries
  - wildlife
  - archaeology
- previous Brooks Study coordinated by MoF
- traditional use studies underway (FRBC) for Quatsino Band
- archaeological overview completed (for all of PMFD)
- salmon farming capability and kelp inventory
- mineral potential and mineral inventory (MINFILE)

Key Resource Information Gaps

- FEN designations under review with MELP for COMP area
- more detailed resource information needed for outer Brooks Bay
- visual assessment to be completed

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[6]

Crown land	100%
Private land	0 %
Tourism potential - high potential for coastal and backcountry tourism use	
Crown reserve	no
Mineral tenures	20%
Tree Farm Licence	no
Timber Licences	10%
Community watershed	no
Private forest lands	<1%
Archaeology potential	
- unproven	10%
- moderate	5%
- potential	15%

Land and Resource Tenures

- Interfor FLA 19238; MB FLA 18244 and Tls
- MoF Small Business Program
- Mineral tenures - noted on LUCO maps covering 20% of the SMZ
- 2 marine plant harvesting licences
- Ecological Reserves:
  - Solander Ecological Reserve - 2nd largest tufted puffin colony in B.C.
  - Klaskish Ecological Reserve

Other Stakeholders/Interest Groups

- Klaskish-East Creek Operational Planning Committee
- Quatsino Nation
- Village of Winter Harbour
- Mount Waddington Community Resource Board
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:

1, 3, 4, 9, 13, 16

6 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

4. Koprino

Primary SMZ Values[7]

- old growth biodiversity and connectivity functions
- upland wildlife habitat

Priority: High

Planning Issues

- connectivity objective and rationale are unclear
- second growth area - threatened wildlife habitat around Koprino Harbour is not apparent
- ORC suggested viewpoints for visual analysis: possibly from water of Holberg Inlet
- public interest group comments:
  - current logging plans will diminish SMZ values
  - designate SMZ as high emphasis for biodiversity to protect old growth and wildlife values
  - ensure the maintenance of old growth biodiversity and connectivity
- pending forest development applications by WFP, Holberg area provides one-third of WFP wood supply; 40% of Holberg WFP operations is in SMZ
- recognize mineral values and the likelihood of future exploration
- need to incorporate values, goals and objectives of Quatsino Park

Planning Needs

- preparation of landscape unit plan
- suggested planning unit: approved landscape unit

Existing Inventories, Plans and Studies

- wildlife - deer winter ranges identified
- proposed zoning plan prepared by WFP
- completed inventories: forest cover, ecosystem classification (1985), stream classification (1995), landscape (1994), recreation inventory (1990), cave locations, drinking water sites
- mineral potential and mineral inventory (MINFILE)

Key Resource Information Gaps

- biodiversity/FEN strategy
- conduct inventory of wildlife habitat and populations

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[8]

Crown land	95%
Private land	5%

Tourism potential - insignificant

Crown reserve	no
Mineral tenures	no
Tree Farm Licence	100%
Timber Licences	25%
Private forest lands	5%
Community watershed	no
Archaeology potential	
- unproven	98%
- moderate	1%
- potential	1%

Land and Resource Tenures

- Western Forest Products TFL 6

Other Stakeholders/Interest Groups

- Quatsino Nation
- Villages of Winter Harbour and Holberg
- Mount Waddington Community Resource Board
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:
1, 3, 5, 6, 7, 8, 11, 13, 16

5. South Brooks - Bunsby

Primary SMZ Values[9]

- population and habitat values for sensitive marine species
- coastal recreation values and opportunities
- archaeological values

Priority: Moderate

Planning Issues

- need to clarify coastal recreation/tourism and marine species objectives/concerns
- quality of tourist services on Bunsby Island (e.g., haphazard use of boat homes as bases for fishing/hunting excursions which conflict with more established outfitters)
- use of house boats for commercial purposes, and Crown foreshore trespass
- development of tourism opportunities consistent with local community aspirations and environmental/cultural resource sensitivities
- opportunity for aboriginal involvement in recreational resource use/tourism
- road access is a concern for future recreation and settlement

7 based on VIRT Interim Technical Report, April 1996
8 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included
9 LIARC Report, 1995, p.98

South Brooks - Bunsby cont...

- development pressures to be addressed by regional district
- candidate wood lot licences in demand for the local area
- wood supply is a major concern for economic stability

- candidate area for potential designation as a Marine Protected Area
- ORC suggested viewpoints for visual analysis: requires local study
- recognize mineral values and the likelihood of future exploration
- consideration of values, goals and objectives of protected areas
- possible exclusion of degraded area and Mt. Paxton/St. Paul's Dome from SMZ, after consultation with Kyuquot residents
- look at including the inter-island area within Marine Planning Unit 18

Planning Needs

- prepare a recreation/tourism and visual landscape plan for SMZ, led by MOF and SBTC
- coordinate planning with CSRD Rural Land-Use Bylaw planning study
- suggested planning unit: entire SMZ
- coordinate planning with Marine Planning Units

Existing Inventories, Plans and Studies

- MOF recreation and landscape inventories completed; landscape inventory needs to be updated
- ESA, forest cover and terrain stability mapping completed
- no FEN mapping to date
- overview archaeological assessment completed
- mineral potential and mineral inventory (MINFILE)

Key Resource Information Gaps

- need a recreation supply/demand analysis, including more detailed recreation inventory especially on the islands near Kyuquot
- detailed tourism resource capability inventory and identification of tourism development opportunities
- biodiversity/FEN strategy
- conduct inventory of wildlife habitat and populations
- conduct inventory on recreational opportunities and viewscapes
- conduct impact assessment on recreational use and establish carrying capacity
- conduct inventory of archaeological and cultural heritage resources

Other Resource Features

- Checleset Bay Ecological Reserve
  - largest and most diverse area of littoral/marine environment in B.C. that is protected
  - contains over half of the population of sea otters in Canada
- Species at risk:
  Blue-listed:
  - Fisher's chickweed (plant) - McKay Cove
  - Sea Otters

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[10]

Crown land	100%
Private land	0%
Tourism potential - significant capability on offshore islands and coastal areas	
Crown reserve	80%
Mineral tenures	< 1%
Tree Farm Licence	no
Timber Licences	10%
Community watershed	5%
Private forest lands	no
Archaeology potential	
- high	5%
- moderate	1%
- potential	25%

Land and Resource Tenures

- Strathcona TSA - Interfor -Forest Licence Chart
- Mineral Tenures noted on LUCO maps covering <1% of the SMZ
- 1 marine plant harvesting licence: - Kyuquot; spawn on kelp; Maff # 611

Other Stakeholders/Interest Groups

- Kyuquot Band
- Comox-Strathcona Regional District West Coast Committee
- Kyuquot Management Board
- Westcoast Expeditions commercial guiding operation
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:

1, 3, 5, 6, 7, 8,13, 16

10 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

6. Woss - Zeballos

Primary SMZ Values

- old growth biodiversity
- visual qualities associated with access corridors and recreation sites
- recreation values/opportunities in association with lakes

Priority: Low

Planning Issues

- old growth retention
- ORC suggested viewpoints for visual analysis: from lakes, corridor & recreation sites
- participation of Nootka Sound Resource Board
- maintaining fibre flow for Pacific's TFL 19
- hiking/climbing opportunities (Rugged Mountain)
- SMZ is split by licensees tenures and Forest District - need to coordinate planning
- moderate concerns over maintaining visual quality
- need to consider biodiversity and recreation/conservation in relation to adjacent park
- classification of unique fish populations
- conduct inventory of recreation uses
- very large community watershed for Zeballos is questioned; serves as backup, but a second well would be preferable to lake water supply
- access along the lake is very rough; Pacific prefers road access through protected area
- Zeballos Creek trail not maintained
- recognize mineral values and the likelihood of future exploration
- Nootka Sound employment and Village of Zeballos stability
- fibre flow and employment levels for the Village of Zeballos and Ehattesaht band
- consideration of values, goals and objectives of Woss Lake Park

Planning Needs

- Pacific's total chance plan to occur in 1997
- Zeballos and Woss Lake landscape unit plans
- recreation and visual landscape plan for Zeballos Lake and associated trails
- suggested planning unit: approved landscape units

Existing Inventories, Plans and Studies

- recreation inventory and recreation analysis are complete
- operability mapped; much of the area is inoperable
- CWAP completed for Zeballos Lake, 1996
- sufficient deer, elk and bear habitat assessment to establish ESAs
- Pacific's Management Plan (1996 to 2001) for TFL 19 recently completed
- Pacific's TFL Twenty Year Plan
- Canfor's TFL Management Plan currently being revised
- stream classification completed
- MELP wildlife capability mapping
- terrain stability classification completed by Pacific
- forest inventories completed by Pacific
- ESA classification completed by Pacific
- TRIM folio overlays currently being prepared
- Canfor plans/studies/inventories (no information provided)
- mineral potential and mineral inventory (MINFILE)
- visual landscape assessment complete

Key Resource Information Gaps

- more detailed recreation assessment, Zeballos Lake
- fisheries assessment of Zeballos Lake
- karst inventory
- completion of FEN mapping and wildlife assessment (FRBC application)
- Terrestrial Ecosystem Mapping (TEM) application to FRBC not approved

Other Resource Features

- Species at risk:
  - **Blue-listed:**
    - Menzies' Brunet (plant) - Kaipit Lake

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[11]

Crown land	100%
Private land	0%
Tourism potential - moderate opportunities associated with Woss Lake	
Crown reserve	no
Mineral tenures	no
Tree Farm Licence	100%
Timber Licences	1%
Community watershed	60%
Private forest lands	no
Archaeology potential	
- unproven	97%
- moderate	1%
- potential	2%

11 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Woss - Zeballos cont...

Land and Resource Tenures

- Canfor TFL 37 (east side); MOF - SBFEP
- Western Forest Products TFL 19 (west side)
- Mineral Tenures: Rugged (#331971)

Other Stakeholders/Interest Groups

- Village of Zeballos
- Namgis Nation
- Ehattesaht Band
- Mount Waddington Community Resource Board
- Nootka Resource Board
- Trappers (registered traplines)
- Sierra Club; Outdoor Recreation Council of BC; BC Speleological Federation
- IWA/PPWC

Bibliography References:

3, 4, 5, 6, 7, 8, 13, 16

7. Johnstone Strait

Primary SMZ Values

- scenic values, as visible from coastal areas
- old growth biodiversity values
- coastal fish and wildlife habitat
- shoreline recreation opportunities

Priority: Moderate

Planning Issues

- high priority for maintaining visual quality since this SMZ has a highly visible viewscape in a high traffic marine area; need to specify visual quality and tourism objectives
- ORC suggested viewpoints for visual analysis: from water
- public interest group comments:
  - VQOs should be applied throughout to protect viewscape critical to recreation/tourism
  - ensure that future development does not impact viewscape
  - ensure that proposed trail has adequate infrastructure and carrying capacity; trail should not provide access beyond Kaikash Creek
- Sierra Club proposes zone include up to height of land
- need to specify coastal wildlife habitat objectives; concern about recreation impacts on killer whales
- Robson Bight Provincial Park has precluded licensee (M&B) road access to TFL cut blocks; some potential road access to upper portions of the TFL; helicopter logging with water dump probably not an acceptable option
- 5% of AAC allocated to small business, but no road access; policy on road access through protected areas is unclear
- Tsitika watershed restoration program proposes to remove existing road and bridge (3km into lower Tsitika)
- interest in local community benefits from increased cruise ship traffic
- maintenance of accessibility and anchorage for pleasure boaters and kayakers
- residential development and whale interpretive centre proposed near Telegraph Cove
- old growth biodiversity needs to be considered in relation to adjacent protected areas
- increase in killer whale watching activities and associated encroachment of boaters into Robson Bight Ecological Reserve

Planning Needs

- preparation of a visual landscape plan for the SMZ
- M&B Forest Development Plan to address access and visual issues
- suggested planning unit: approved landscape units

Existing Inventories, Plans and Studies

- Tsitika Plan covering south-east portion of SMZ
- no recent inventory work in TFL due to uncertain status
- TFL management plan approved in June 1996
- mineral potential and mineral inventory (MINFILE)

Key Resource Information Gaps

- visual quality objectives
- recreation inventory and analysis
- impact of potential trail development
- conduct inventory of wildlife habitat and populations

Other Resource Features

- Species at risk:
  Blue-listed:
  - bog rush (plant) - Suqash Fern
  - Queen Charlotte butterweed (plant) - Suqash Fern

Land Tenure/Capability Classification (VILUP 1994 Thematic Maps)[12]

Crown land	100%
Private land	5%

Tourism potential - internationally significant existing use and high capability for marine and coastal activities

Crown reserve	no
Mineral tenures	no
Tree Farm Licence	40%
Timber Licences	20%
Community watershed	no
Private forest lands	no
Archaeology potential	
- unproven	50%
- potential	50%

Land and Resource Tenures

- M&B TFL 39
- Interfor FLA 19238
- Kingcombe TSA

Other Stakeholdeps/Interest Groups

- Johnstone Strait Killer Whale Committee
- Mount Waddington Community Resource Board
- Namgis Nation; Tlowitsis - Mumtagila Nation
- tourism operators in Johnstone Strait
- Sierra Club
- Outdoor Recreation Council of BC

Bibliography References:
3, 4, 5, 13

8. Tsitika River

Primary SMZ Values

- old growth and connectivity function
- fish and wildlife habitats and populations, associated with riparian zone

Priority: High

Planning Issues

- relation of SMZ to adjacent areas: higher biodiversity in SMZ and lower elsewhere?
- protection of killer whales while maintaining whale watching industry in SMZ
- marbled murrelet potential breeding areas
- public interest group comments:
  - overcutting in SMZ and entire Tsitika watershed unsustainable
  - protection of fish, wildlife, old growth and biodiversity a priority
  - east side of Fickle Lake should be protected area due to steelhead run
  - additional objective: maintain ecological integrity and viewscape of adjacent provincial park
  - lodge or resort would directly conflict with high biodiversity values
  - ensure the maintenance of old growth biodiversity and connectivity
  - the MoF Tsitika LRUP is inadequate, as it is pre SMZ and pre FPC; new plan with public input required
- Mitlenatch Field Naturalists state there is a need to recognize very important fisheries values in Fickle Lake-Claud Elliot Lake area and high bear, elk, and deer populations due to high fish and wetland values. Goshawk use the valley as well. This area should be protected.
- ORC suggests that government should encourage/require more research and operation trials to demonstrate and increase the use of alternative harvesting systems
- Sierra Club proposes inclusion of Catherine and Thursday Creeks in SMZ
- need to finalize and endorse the MoF Tsitika River Plan
- 3 blocks within the SMZ have been approved (based on clearcutting with reserves); 3 more blocks proposed in 5 year plan
- need to specify biodiversity objectives and requirements for proposed blocks
- M&B object to alternative harvesting systems because of hemlock-balsam stands and blowdown potential, not suited to selective harvesting
- area of proposed pilot project for preparation of a total chance development plan through one rotation (Blk 2 of the TFL)
- recognize mineral values and the likelihood of future exploration
- consideration of protected area's values, goals and objectives
- look at environmental values in the Catherine Creek area

Planning Needs

- need to consider a wide range of options to address biodiversity emphasis (in addition to alternative silviculture systems) within landscape units
- access management planning
- preparation of Tsitika landscape unit plan, with a focus on FEN and OGMA designation
- suggested planning unit: Tsitika drainage
- conduct inventory of fish and wildlife habitat and populations

12 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Tsitika River cont...

Existing Inventories, Plans and Studies

- TFL management plan, including separate rate of cut for the Tsitika River
- comprehensive inventories (from 1978) completed for Tsitika River Plan
- sedimentation studies (Environment Canada and MOF) underway
- marbled murrelet studies in 1991, and proposed for 1997
- MELP Northern Goshawk studies in the last two years
- TEM recently completed
- M&B northern goshawk and bear den studies for each proposed block
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  Blue Listed:
  - Vancouver Island pygmy owl - Tsitika Lake

Key Resource Information Gaps

- require northern goshawk strategy

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[13]

Crown land	100 %
Private land	0 %
Tourism potential - moderate capability for backcountry activities	
Crown reserve	no
Mineral tenures	<1 %
Tree Farm Licence	100 %
Timber Licences	no
Community watershed	no
Private forest lands	no
Archaeology potential	
- unproven	100 %

Land and Resource Tenures

- MacMillan Bloedel TFL 39
- Mineral Tenures noted on LUCO maps covering <1% of the SMZ

Other Stakeholders/Interest Groups

- Johnstone Strait Killer Whale Committee
- Mount Waddington Community Resource Board
- Namgis Nation
- Tlowitsis - Mumtagila Nation
- Sierra Club; Outdoor Recreation Council of BC
- Mitlenatch Field Naturalists

Bibliography References:

3, 4, 5, 13

9. Tsitika - Woss

Primary SMZ Values[14]

- Biodiversity (restoration) and connectivity function
- recreational values and opportunities
- critical fish and wildlife habitats and populations

Priority: Moderate

Planning Issues

- restoration of old growth biodiversity, fish and wildlife habitat, connectivity
- marbled murrelet potential breeding areas
- integration with objectives for Woss Lake Provincial Park, Nimpkish River Ecological Reserve, Claud Elliot Creek Ecological Reserve, Claud Elliott Lake Provincial Park and Schoen Lake Provincial Park
- ORC suggested viewpoints for visual analysis: from Woss Lake
- recognize mineral values and the likelihood of future exploration

Planning Needs

- TFL 37 management plan inventory updates and wildlife inventory underway; SMZ objectives should be addressed as part of plan preparation and review
- Canfor TFL Statement of Management Objectives and Practices under review
- preparation of landscape unit plans, with a focus on FEN and OGMA designation
- suggested planning unit: approved landscape units
- conduct inventory on recreational opportunities
- create plan for restoration of biodiversity, connectivity, and fish & wildlife habitats

Existing Inventories, Plans and Studies

- archaeological inventory completed for 4 blocks
- wildlife inventory underway by Canfor
- submissions for forest development plans in SMZ submitted (October)
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  Blue-listed:

13 information derived from Vancouver Island Land Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included
14 LIARC Report, 1995, p.106

- purple-leaved willowheads (plant) - Woss Lake
- Vancouver Island pygmy owl - various locations in SMZ
- Vancouver Island Wolverine - Davie River

Red-listed

- Vancouver Island wolverine - Woss Lake/ Nimpkish River

Key Resource Information Gaps

- biodiversity/FEN strategy
- TFL management plan updated inventory to be completed

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[15]

Crown land	100%
Private land	15%
Tourism potential -moderate capability for midcountry activities and adjacent to Woss Lake	
Crown reserve	no
Mineral tenures	<1%
Tree Farm Licence	100%
Timber Licences	60%
Community watershed	no
Private forest lands	15%
Archaeology potential	
- unproven	85%
- moderate	5%
- potential	10%

Land and Resource Tenures

- Canfor TFL 37
- Mineral Tenures - noted on LUCO maps covering <1 % of the SMZ

Other Stakeholders/Interest Groups

- Village of Woss
- Namgis Nation
- Mount Waddington Community Resource Board
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:

3, 4, 5, 13

10. Pinder - Atluck

Primary SMZ Values

- visual qualities associated with the lakes and road corridor
- fish and wildlife habitats and populations
- recreation opportunities at the lakes

Priority: Low

Planning Issues

- recreation and visual management concerns
- ORC suggested viewpoints for visual analysis: from roads and lakes
- Sierra Club suggested an assessment of the rate of cut
- recognize mineral values and the likelihood of future exploration
- recognize importance of Tahsish River
- ensure the maintenance of VQOs, recreational opportunities, and fish & wildlife habitats
- OGMA in upper Pinder Valley
- Friends of Nootka Sound suggested that karst deposits be considered in maintenance of biodiversity at zone/landscape level

Planning Needs

- preparation of landscape unit plan, with a focus on FEN designation and recreation and visual landscape management
- conduct inventory of fish and wildlife habitat and populations
- conduct inventory on recreational opportunities and viewscapes
- suggested planning unit: approved landscape unit

Existing Inventories, Plans and Studies

- Canfor Plans/inventories/studies (no information provided)
- recreation inventory
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:

Blue-listed:

- Vancouver Island pygmy owl - Atluck Lake

Key Resource Information Gaps

- no information provided

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[16]

Crown land	99%
Private land	0%
Tourism potential - predominantly moderate capability	
Crown reserve	no
Mineral tenures	no
Tree Farm Licence	99%
Timber Licences	50%
Community watershed	<1%

15 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Pinder - Adluck cont...

Private forest lands	no
Archaeology potential	
- unproven	90%
- moderate	-
- potential	10%

Land and Resource Tenures

- Western Forest Products TFL 19 (96 ha only)
- Canfor TFL 37

Other Stakeholders/Interest Groups

- Village of Zeballos
- Namgis First Nation
- Mount Waddington Community Resource Board
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:
3, 4, 5, 13

11. Schoen - Strathcona

Primary SMZ Values

- old growth biodiversity and connectivity function
- fish and wildlife habitats and populations
- visual qualities associated with Victoria and Warden Peaks

Priority: High

Planning Issues

- priority objectives should include recreation and visual landscapes near peaks
- ORC suggested viewpoints for visual analysis: around Victoria and Warden Peaks; local study required
- access development for recreation
- need to specify biodiversity connectivity objectives
- need to specify visual quality objectives: from the peaks/toward the peaks
- public interest group comments:
  - assess rate of current forestry harvest impact on SMZ values and objectives
  - assess views to/from peaks and parks
  - additional objectives: maintain ecological integrity and viewscapes of adjacent parks and recreation values and opportunities
  - oppose lodge/resort development
- ensure the maintenance of old growth biodiversity, fish, wildlife, and connectivity
- OGMA in upper Schoen Creek
- Sierra Club recommends a rate of cut assessment for White, Salmon, and Gold watersheds
- pending development applications; major operating area for TFL 19 and 39
- major fisheries concerns on the Gold River
- old growth retention (especially Elbow Creek drainage)
- enhance elk habitat and blacktail deer habitat
- protection and enhancement of valuable steelhead and salmon habitat within Gold River and Elbow and Twaddle creeks
- maintain fibre flow for Pacific's Forest Licence A19231 and Gold River/Tahsis/ Zeballos
- maintain fibre flow and enhance employment for the Village of Gold River, Mowachaht/Muchalaht Band and community forest licence
- concern for community forest licence in Elbow Creek drainage
- involvement of Nootka Resource Board in planning
- recognize mineral values and the likelihood of future exploration
- consideration of values, goals and objectives of protected areas

Planning Needs

- completion of landscape unit plans, involving: MOF, MELP, Western Forest Products, Village of Gold River, Mowachaht/Muchalat Band, Nootka Resource Board
- preparation of visual landscape plan around Victoria and Warden Peaks
- preparation of upper landscape unit plans, with a focus on FEN and OGMA designation, and recreation and visual management
- inventory of fish and wildlife habitat and populations
- inventory on viewscapes
- suggested planning unit: landscape units

Existing Inventories, Plans and Studies

- operability mapped
- fisheries and watershed restoration assessment - 3 overviews complete (D. Tripp)
- fall 1996: Level 1 fisheries assessment proposed
- MOF/WFP TFL recreation inventory
- WFP's Five year Forest Development/Access Management/Silviculture Plans
- WFP's TFL 19 Management Plan No. 8 (1996-2001)
- WFP's TFL 19/FLA 19231 operability mapping
- WFP's TFL 19 Twenty Year Plan

16 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

- Stream classification/rehabilitation (in progress)
- WFP's Recreation Analysis Report (TFL 19)
- MELP wildlife capability mapping
- MOF/WFP's forest inventories
- MOF/WFP's ESA classification
- MOF/WFP's terrain stability classification
- WFP's fisheries assessment of Elbow Creek (Peter Bruce, 1994-95)
- Level 1 CWAP for upper Gold River
- WFP's Elbow Creek deer assessment
- wildlife ecosystem classification (in progress)
- TRIM (1994 Thematic overlays being digitized)
- mineral potential and mineral inventory (MINFILE)

Key Resource Information Gaps

- more detailed recreation inventory for TFL 39 area within the SMZ and upgrading to RIC standards
- visual landscape inventory of Victoria peak
- fisheries assessment of Twaddle Creek and Gold River (in progress)
- update wildlife assessments (elk) (FRBC proposal)
- ecosystem classification

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[17]

Crown land	100%
Private land	0%
Tourism potential - moderate capability associated with backcountry activities	
Crown reserve	no
Mineral tenures	<1%
Tree Farm Licence	95%
Timber Licences	10%
Community watershed	no
Private forest lands	<1%
Archaeology potential - unproven	100%

Land and Resource Tenures

- Canfor TFL 37; TFL 39 MB Kelsey Bay Division
- Western Forest Products TFL 19 and FLA 19231
- Villages of Gold River/Tahsis/Zeballos community forest licence
- traplines
- Mineral Tenures (#346859)

Other Stakeholders/Interest Groups

- Nootka Sound Economic Development Corporation
- Villages of Gold River/Tahsis/Zeballos/Sayward
- Nootka Resource Board
- Mowachaht/Muchalaht Band/Nuu-chah-nulth Tribal Council
- Namgis Nation
- Mount Waddington Community Resource Board
- Owen Lake Logging (Campbell River) (contractor)
- Kent Logging and Equipment (Courtenay)
- Russell and Lily (Tahsis)
- Sierra Club
- Outdoor Recreation Council of BC
- Friends of Strathcona Park

Bibliography References:
3, 4, 5, 13

12. Western Nootka Island

Primary SMZ Values

- endangered/threatened marine species and habitat (e.g., sea otters, sea lions)
- coastal wildlife and fish habitats
- visual quality, as visible from coastal areas
- coastal and upland recreation/tourism values and opportunities
- archaeological resources

Priority: High

Planning Issues

- planning unit needs to consider larger area in context with access points
- need for linkage with BC Parks: recreation/tourism strategy in conjunction with Nuchatlitz, Bligh Island and Santa Gertrudis-Boca del Infierno Provincial Parks
- need to specify endangered/threatened species objectives - protection of sea otter and sea lion habitat; local concern about impact of sea otters on urchin
- high capability shellfish aquaculture beaches and reaches
- ORC suggested viewpoints for visual analysis: from water on coastline and proposed trail route, view of north side Genevieve Range from Nuchatlitz of crucial importance - local study required
- public interest group comments:
  - protection of viewscape
  - establish a wilderness trail corridor
  - much of Nootka Island diversity ignored
- clearcut reserves should be within clearcuts, not adjacent; clearcut limit should be reduced to 30% over 10 years

17 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Western Nootka Island cont...

- Mitlenatch Field Naturalists have identified areas important for Marbled Murrelet habitat: Louie Bay, Calvin Falls, Bajo Point and Beano Creek; also want better wildlife studies; other regionally important species include: bald eagle nest between Louie Bay and Calvin Falls; bear habitat: Bajo Point to Beano Creek, especially Beano Creek estuary; delete cutblocks, especially B145 because of proximity to Beano Cr. Estuary; keep trail to Calvin Falls open for public; C141 should have a reserve around both branches of Calvin Creek; local trails and routes need to be better marked on Forest Development Plans as these are being featured in hiking guides; show a trail from Louie Bay to the beach, and a coastal route from Louie Bay to Friendly Cove
- access and development pressures
- development pressures to be addressed by regional district
- Nootka First Nation Forest Products Forest Licence (propose wood from SMZ)
- Mowachaht/Muchalaht Band recreation/tourism development program
- Nootka Cannery old subdivision within Boca-Sarta Provincial Park
- recreation strategy and hiking/camping opportunities; proposed trail between IR1- IR3
- protection of sea otter and sea lion habitat
- CWS interest in seabirds and other marine bird species at western Nootka Is-Ferrer Pt
- maintain fibre flow for Western Forest Products and community forest licence
- Nootka First Nation Forest Products want to start forest operations in 1997
- involvement of Nootka Resource Board in planning
- recognize mineral values and the likelihood of future exploration
- consideration of protected areas' values, goals and objectives

Planning Needs

- preparation of a recreation/tourism plan; proposed tourism development strategy
- coordinate planning with CSRD proposed Rural Land-Use Bylaw planning study
- three recreation planning sub-areas: a) Zeballos-Esperanza, b) outer coast, c) south-east Friendly Cove
- completion of landscape unit plans, involving: MOF, MELP, Western Forest Products, Villages of Gold River, Tahsis and Zeballos, Mowachaht/Muchalat Band, Nuchatlat Tribe, Ehattesaht Tribe, Nootka Resource Board
- preparation of landscape unit plan, with a focus on visual resource management
- suggested planning unit: Nootka Island
- conduct inventory of fish and wildlife habitat and populations
- conduct inventory on recreational opportunities and viewscapes and archaeological resources

Existing Inventories, Plans and Studies

- MOF Nootka Sound Recreation Initiative completed -1996
- Bligh Island and Santa Gertrudis-Boca del Infierno Management Proposals
- CSRD west coast park plan completed about 10 years ago
- Terrain stability overview completed
- Landscape inventory completed for inlet area only
- MOF Recreation inventory (out of date)
- Archaeological Inventory - 1988-90 field work (Yvonne Marshall), and Phd thesis
- Mowachaht/Muchalaht Archaeology Project - survey and mapping program
- WFP's Five year Forest Development/Access Management/Silviculture Plans
- Nootka First Nation Forest Products Five Year (1996-2000) Development Plan
- MOF/WFP's Operability Mapping
- MELP wildlife capability mapping
- MOF/WFP's forest inventories
- MOF/WFP's ESA classification
- TRIM
- CWAPs for two drainages (Beano and Bajo Creeks) reports available Fall 1996
- stream classification field work completed for Beano and Bajo systems
- Calvin Creek fisheries inventory to be completed in 1996
- Coastal Resource Interests Study (1989)
- Tourism Resource Inventory (1996)
- salmon and shellfish aquaculture capability studies, and kelp inventory
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  - gray whale
  - northern sea lion
  - marbled murrelet

Key Resource Information Gaps

- landscape assessment for outer part of the island, and establishment of VQOs

- recreation inventory needs to be updated to new RIC standards at 1:20 K
- detailed tourism resources and capability inventory and tourism development opportunities study
- possible gap in terrain stability mapping; applying to FRBC
- archaeological assessment
- terrestrial ecosystem mapping needs to be completed
- stream classification for remaining streams
- biodiversity/FENs to be addressed within forest development plans
- operability mapping (including non-conventional harvesting systems)
- karst inventory (including scientific and cultural values)
- wildlife habitat inventories and documentation of wildlife values

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[18]

Crown land	95%
Private land	5%
Tourism potential - internationally significant coastal marine and wilderness tourism capability; exceptional cultural features	
Crown reserve	60%
Mineral tenures	1%
Tree Farm Licence	no
Timber Licences	5%
Community watershed	no
Private forest lands	no
Archaeology potential	
- high	5%
- moderate	15%
- potential	10%

Land and Resource Tenures

- Western Forest Products Ltd. (FLA 19231)
- Nootka First Nation Forest Products Ltd. - owned by Mowachaht/Muchalaht Band (community forest licence)
- MacMillan Bloedel (TL T0853, T0862, T0866)
- Traplines: (e.g., TR0112T627/TR0112T624)
- Mineral Tenures: Five Acres (#342107)
- 1 shellfish licence
- 2 marine plant harvesting licences
- 31 Crown land tenure files, including:
  - private lands (e.g., Lot 68, 261, 262, 270, 366, 426, 427; Nootka Is. Fish Camp, etc.)
  - 5 Indian Reserve tenures files (A-Ass, Owossitsa, Opemit, Nuchatl, Ahpukto)
- Indian Reserves and private landowners

Other Stakeholders/Interest Groups

- Villages of Gold River, Tahsis, Zeballos; Mowachaht/Muchalaht Band, Nuchatlat Nation
- Nootka Resource Board
- Mowachaht/Muchalaht Band (IRs 1,2,3)
- Nuchatlat Nation (IRs 1,2,4,6)
- Ehattesaht Band (nearby)
- Nootka Island Fishing Camp
- Nootka Island Logging Contractors; Kent Logging & Equipment Ltd.; Russell and Lilly Ltd.; Onion Lake Logging Ltd.
- tourism operators; Strathcona Lodge
- aquaculture association
- Sea Kaykers Association of BC
- Sierra Club; Outdoor Recreation Council of BC; BC Speleological Federation
- Mitlenatch Field Naturalists
- Comox-Strathcona Regional District

Bibliography References:
2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 17

13. Nahmint

Primary SMZ Values

- old growth biodiversity and connectivity functions
- fish and wildlife habitats and populations
- visual quality for recreationists in Nahmint Valley
- Linkage to possible high elevation Wilderness Area

Priority: High

Planning Issues

- rate of harvest remains to be resolved
- carrying capacity and objectives for elk
- ORC suggested viewpoints for visual analysis: from Nahmint Lake and parts of valley
- public interest group comments:
  - concerns over rate of forestry harvest, including 5 year Forest Development Plan
  - concerns over lack of protection for fish, wildlife, old growth and biodiversity
  - propose creation of old growth reserves for Douglas fir in upper Nahmint
  - consideration of M&B's old growth management proposal
  - apply CWAP and place old growth into FEN and OGMA
- area used by Hupcasath First Nation for fishing, cedar gathering, berries, medicines and hunting;

18 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Nahmint cont...

inland from Nahmint Bay is an important archaeological area
- concern about potential reduced allowable annual cut - impact on other areas; major operating area for M&B; current AAC does not account for SMZ objectives
- Sierra Club recommends a rate of cut assessment
- recognize mineral values, existing exploration programs and the likelihood of future exploration

Planning Needs

- organize planning around landscape units; fix Taylor River boundary to accord with viewscape
- address deferred Wilderness Area in the upper Nahmint
- finalize SMZ planning before commencement of TFL management plan
- preparation of landscape unit plan, with a focus on FEN and OGMA designation, and recreation and visual resource management
- conduct inventory of fish and wildlife habitat and populations
- conduct inventory on recreational opportunities and viewscapes
- conduct comprehensive traditional use surveys and archaeological assessments
- suggested planning unit: Nahmint drainage

Existing Inventories, Plans and Studies

- Nahmint watershed review/folio mapping finalized in 1992
- recreation and landscape inventories are up to date
- MELP vegetation studies for elk capability are underway
- vegetation site series mapping (one-half of area complete)
- reptile/small mammal inventories proposed (FRBC)
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  Red-listed: northern Adder's tongue fern - Sutton Pass Ecological Reserve, one of four or five known locations of northern Adder's tongue fern in B.C.

Key Resource Information Gaps

- MELP Data Needs: marbled murrelet habitat use (site specific); northern goshawks habitat use; rare and endangered species (bats, owls, riparian species [water shrew]) and rare plants; bear management studies - to develop management strategies and carrying capacity (i.e., bear den use); songbird communities in old growth and second growth; riparian community studies
- traditional use information

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[19]

Crown land	99%
Private land	1%
Tourism potential - significant fishing associated with river component	
Crown reserve	no
Mineral tenures	10%
Tree Farm Licence	99%
Timber Licences	20%
Community watershed	no
Private forest lands	<1%
Archaeology potential	
- unproven	85%
- moderate	5%
- potential	10%

Land and Resource Tenures

- M&B TFL 44
- 2 Crown land tenure files, including 1 Indian Reserve tenure file (Kleykleyhouse)
- Mineral Tenures: Dalmation Resources Ltd.'s Tay property, about 10% of the SMZ

Other Stakeholders/Interest Groups

- Nahmint Watershed Follow-up Committee
- Sierra Club; Outdoor Recreation Council of BC
- Hupacasath First Nation

Bibliography References:

3, 4, 5, 13

14. Barkley Sound

Primary SMZ Values

- rare/threatened marine species populations and habitat;
- recreational values and opportunities
- visual resources associated with marine zones and islands
- archaeological values

Priority: Moderate

Planning Issues

- maintain and protect visual quality of SMZ from Broken Islands, which are extensively used by eco-tourists

19 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

- proposed community forest licence in Broughton Peak/Crawford Lake area
- high capability shellfish aquaculture beaches and reaches
- see development issues identified in Barkley Sound Planning Strategy, 1995
- unauthorized (90) float cabins throughout Barkley Sound
- marbled murrelet winter and summer habitats
- potential designation as Important Bird Area by CWS due to sea ducks and marbled murrelet
- candidate area for designation as Marine Protected Area
- uncertainty over visual constraints adjacent to LIAs
- recognize mineral values and the likelihood of future exploration
- Sierra Club recommends the restriction of aquaculture

Planning Needs

- several licensees; need to coordinate inventories/ determine the lead agency for planning
- preparation of visual landscape management plan for Barkley Sound and Alberni Canal
- implementation of Barkley Sound Planning Strategy, led by Alberni-Clayoquot Regional District
- inventory of fish and marine wildlife habitat and populations
- inventory on recreational opportunities and viewscapes
- Suggested planning unit: Barkley Sound and Alberni Canal

Existing Inventories, Plans and Studies

- Barkley Sound Planning Study, Alberni-Clayoquot Regional District, 1995
- archaeological assessments in Lucky Creek, head of Pipestem, Julia Passage and Crawford Lake, and Tzartus Island
- 1995 landscape assessment for all of Barkley Sound (Tzartus Is. VQOs approved)
- Interfor chart area VQOs and recreation inventories remain to be completed
- salmon and shellfish culture capability mapping & qualitative kelp inventory
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:

Blue-listed:
- Oregon selagninella (plant) - Broken Island Group
- tufted puffin - Seabird Rocks
- surf scoter - Macoah Passage, Pinkerton Island/ Equis Beach
- Cassin's auklet - Seabird Rocks

Yellow-listed:
- rhinocerous auklet - Seabird Rocks
- bald eagle - various locations

Red-listed:
- northern sea lion - Folger Island

Gray whale (n/a) - Pachena Point, Ucluelet

Key Resource Information Gaps

- MELP Data Needs: marbled murrelet habitat use (site specific); northern goshawks habitat use; rare and endangered species (bats, owls, riparian species [water shrew]) and rare plants; bear management studies - to develop management strategies and carrying capacity (i.e., bear den use); songbird communities in old growth and second growth; seabirds and waterfowl
- recreation inventory needs to be updated
- detailed tourism resource inventory and capability assessment
- further archaeological assessments need to be completed

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[20]

Crown land	99%
Private land	1%
Tourism potential - internationally significant coastal, marine and resort capability	
Crown reserve	5%
Mineral tenures	10%
Tree Farm Licence	10%
Timber Licences	5%
Community watershed	<1%
Private forest lands	5%
Archaeology potential	
- high	
- moderate	20%
- potential	5%

Land and Resource Tenures

- Interfor chart areas: east of Tzartus Island, west side of Uchucklesit Inlet, and applied for in Vernon Bay and May Lake
- MOF Small Business Program on Tzartus Island and Broughton Peaks area
- Mineral Tenures Consolidated Logan's Lucky/Toq property, about 10% of the SMZ
- 3 fish farms
- 18 shellfish farms
- 4 marine plant harvesting licences:
- 114 Crown land tenure files, including 9 Indian Reserve tenure files (Eeoowa, Quinaquilth, Deekyakus, Nuchaquis, Ahmitsa, Outs, Equis, Macoah, Chequis)

Barkley Sound cont...

Other Stakeholders/Interest Groups

- Alberni-Clayoquot Regional District
- Nuu-chah-nulth Tribal Council and member bands
- tourism operators; aquaculture associations
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:
3, 4, 5, 6, 7, 8, 9, 13, 15

15. Tofino Mudflats

Primary SMZ Values

- estuary/mudflat habitat for fish and waterfowl
- sheltered waters habitats for waterfowl

Priority: Low

Planning Issues

- Meares Island First Nations interests
- shellfish aquaculture leases and high shellfish capability in Lemmens Inlet
- Sierra Club suggests designation as Wildlife Management Area and no aquaculture within this area
- potential designation as Important Bird Area and Western Hemisphere Shorebird Reserve Network by CWS due to shorebirds

Planning Needs

- need to determine the lead agency and scope of follow-up planning
- preparation of a wildlife management plan by MELP and CWS
- suggested planning unit: Tofino Mudflats SMZ

Existing Inventories, Plans and Studies

- Clayoquot Sound Special Management Zone landscape planning studies
- Clayoquot Sound Aquaculture Resource Study, 1995
- visual landscape inventory completed
- some waterfowl studies underway, 1996
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  - **Blue-listed:**
    - California wax myrtle - Cox Bay
    - Sitka spruce - Meares Creek
  - Western red cedar - Meares Island

Key Resource Information Gaps

- MELP Data Needs: seabirds and waterfowl

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[21]

Crown land	100%
Private land	0%
Tourism potential - significant wildlife viewing product capability	
Crown reserve	no
Mineral tenures	no
Tree Farm Licence	no
Timber Licences	no
Community watershed	no
Private forest lands	no

Land and Resource Tenures

- 2 Shellfish leases
- 3 Crown land tenure files, including 1 Indian Reserve (Opitsat)

Other Stakeholders/Interest Groups

- Village of Tofino
- Alberni-Clayoquot Regional District
- Nuu-chah-nulth Tribal Council and member bands
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:
3, 4, 5, 6, 7, 8, 9, 13, 16

16. Saanich Inlet

Primary SMZ Values

- marine water quality
- waterfowl habitat areas
- estuarine habitats
- recreation values and high quality recreation opportunities

Priority: Low

Planning Issues

- water quality, non-point pollution sources from upland-uses
- maintain recreational access to foreshore
- Sierra Club suggests local government focus on low density housing

Planning Needs

- regional and local planning needed to protect marine environment from surrounding urban development

20 & 21 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

- review and consider recommendations of 1996 Saanich Inlet Study, led by MELP
- suggested planning unit: Saanich Inlet and adjacent local governments
- consideration of parks' values, goals and objectives
- inventory on recreational opportunities

Other Resource Features

- Satellite Channel Ecological Reserve
  - only completely subtidal Ecological Reserve in B.C.
- Gowlland Tod Provincial Park including southeast portion of Saanich Inlet

Existing Inventories, Plans and Studies

- MELP 1996 Saanich Inlet Study
- archaeological assessment of Finlayson Arm (ongoing)
- mineral potential and mineral inventory (MINFILE)
- management plan for Gowlland Tod Provincial Park

Key Resource Information Gaps

- none identified

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[22]

Crown land	100%
Private land	0%
Tourism potential	no data available
Crown reserve	no
Mineral tenures	<1%
Tree Farm Licence	no
Timber Licences	10%
Community watershed	no
Private forest lands	no
Archaeology potential	
- unproven	100%

Land and Resource Tenures

- 1 marine plant harvesting licence for Salicornia
- Mineral Tenures noted on LUCO maps covering <1% of the SMZ
- 191 Crown land tenure files, including;
  - 1 Ecological Reserve
  - 1 Indian Reserve (Senanus)

Other Stakeholders/Interest Groups

- Capital Regional District
- Cowichan Regional District
- District of North Saanich
- District of Central Saanich
- District of Highlands
- Institute of Oceans Sciences, Pat Bay
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:

2, 3, 4, 5, 6, 7, 8

17. Strathcona - Taylor

Primary SMZ Values

- old growth biodiversity (Maber Creek)
- wildlife and fish habitats and populations;
- connectivity functions (Taylor River to Strathcona Park)

Priority: Moderate

Planning Issues

- need more specific direction on where and how objectives apply (e.g., Maber Creek is presumably the focus of biodiversity)
- public interest group comments:
  - concern over development plans in Maber Creek area, a pristine watershed prior to 1994
  - establish old growth reserves in Maber Creek area
  - add objectives: recreation opportunities/maintain visual, recreation, ecological integrity of Strathcona Provincial Park
- very important area for Hupacasath First Nation fishing, cedar gathering, berries, medicinal plants, past settlement areas and sacred/spiritual sites
- Sierra Club recommends a rate of cut assessment and an OGMA for Maber Creek
- industry comments: no clear direction on harvesting constraints
- MB suggest protected area boundary should exclude main haul road into Maber Creek
- recognize mineral values, existing exploration programs and the likelihood of future exploration
- boundary part way up the Taylor River is not a logical planning unit
- coordinate SMZ boundary with park boundary at north end

Planning Needs

- need a biodiversity strategy for Maber Creek
- inventory of fish and wildlife habitat and populations
- preparation of landscape unit plans, with a focus on FEN, OGMA, and WHA designation
- traditional use surveys and archaeological assessments
- suggested planning unit: approved landscape units

Existing Inventories, Plans and Studies

- Maber Creek hydrological and fisheries studies completed by MB

22 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Strathcona - Taylor cont...

- MB inventory of elk/deer in Maber Creek area
- CWAP completed for Maber Creek
- mineral potential and mineral inventory (MINFILE)
- Hupacasath First Nation/MB/MOF agreement to conduct a Traditional Use Assessment and Archaeological Impact Assessment of the McBride Creek drainage

Key Resource Information Gaps

- MELP Data Needs: marbled murrelet habitat use (site specific); northern goshawks habitat use; rare and endangered species (bats, owls, riparian species [water shrew]) and rare plants; bear management studies - to develop management strategies and carrying capacity (i.e., bear den use); songbird communities in old growth and second growth; riparian community studies
- no comprehensive inventories to address the objectives
- traditional use surveys and archaeological assessments

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[23]

Crown land	99%
Private land	1%
Tourism potential - moderate capability for backcountry activities	
Crown reserve	no
Mineral tenures	25%
Tree Farm Licence	100%
Timber Licences	no
Community watershed	no
Private forest lands	1%
Archaeology potential	
- high	30%
- moderate	60%
- potential	10%

Land and Resource Tenures

- MB TFL 44
- Mineral Tenures Dalmation Resources Ltd.'s Tay property, about 25% of the SMZ
- 4 Crown land tenure files, including 1 Quarry file

Other Stakeholders/Interest Groups

- Comox-Strathcona Community Resource Board
- Sierra Club
- Outdoor Recreation Council of BC
- Friends of Strathcona Park
- Hupacasath First Nation

Bibliography References:

3, 4, 5, 13

18. Alberni Canal

Primary SMZ Values

- visual qualities as seen from waterway
- coastal wildlife habitats

Priority: Low

Planning Issues

- Interfor road construction proposed for 1996
- public interest group comments:
  - add objective: maintain recreation opportunities
- recognize mineral values and the likelihood of future exploration
- high archaeological importance for First Nations

Planning Needs

- visual landscape plan and objectives for Alberni Canal
- conduct inventory of fish and wildlife habitat and populations
- suggested planning unit: Alberni Canal and Barkley Sound

Existing Inventories, Plans and Studies

- recreation inventory completed
- visual landscape inventory available for TFL lands
- Barkley Sound Planning Strategy, 1995
- Interfor forest development plan (1996) submitted for review
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  Red-listed:
  - Vancouver Island wolverine - Nitinat River
  Yellow-listed:
  - bald eagle - various locations

Key Resource Information Gaps

- MELP Data Needs: marbled murrelet habitat use (site specific); northern goshawks habitat use; rare and endangered species (bats, owls, riparian species [water shrew]) and rare plants; bear management studies - to develop management strategies and carrying capacity (i.e., bear den use); songbird communities in old growth and second growth; seabirds and waterfowl
- no visual landscape inventory for TSA lands on north side
- no VQO objectives established for Alberni Canal
- archaeological studies and Traditional Use Study

23 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[24]

Crown land	85%
Private land	15%
Tourism potential - site specific coastal product capability	
Crown reserve	no
Mineral tenures	5%
Tree Farm Licence	60%
Timber Licences	60%
Community watershed	no
Private forest lands	15%
Archaeology potential	
- high	
- moderate	5%
- potential	65%

Land and Resource Tenures

- M&B TFL 44 on south side
- Interfor forest licence on north side
- Mineral Tenures noted on LUCO maps covering about 5% of the SMZ
- 2 Crown land tenure files

Other Stakeholders/Interest Groups

- Town of Port Alberni
- Regional District of Alberni-Clayoquot
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:
3, 4, 5, 13, 15, 16

19. Quadra Island

Primary SMZ Values[25]

- ecosection biodiversity representation
- coastal and shorelands wildlife values
- visual qualities, especially in association with marine recreation and major road corridors

Priority: High

Planning Issues

- need to specify 'coastal', shorelands and interior wildlife values and objectives
- need to specify recreation objectives to be achieved
- public interest group comments:
  - need for more detailed planning and consideration of alternative silviculture systems
  - visual quality important in areas of present and future high use
  - need to protect adjacent marine viewscapes
  - oppose push-over logging and clearcuts
  - disagree with objectives; visual qualities from trails, etc. are important, expand wildlife objectives beyond the shoreline to all of the area
  - additional objectives: maintain recreation opportunities; maintain ecological integrity and viewscape of adjacent Prov park; maintain and protect fish and wildlife habitat - both upland and marine, biodiversity and tourism
  - concern about number and size of logging roads, AAC is too high; concern over logging alongside Long Lake without adequate wildlife inventories
  - concern about 'fragmented' plans - need for overall plan for the island
  - concerns about amount, size, type of cutblocks shown on the development plan and mining
  - include all of Quadra Island in SMZ
- Sierra Club recommends aquaculture be restricted and an assessment of rate of cut
- ORC suggested viewpoints for visual analysis: from water along coast; area of SMZ affected: 10%
- ecosection variant representation (altered landscape) objective
- rate of harvest and use of alternative harvesting systems
- visual concerns for marine recreation/tourism around the coast, especially along Discovery Passage/Johnstone Strait
- log handling sites
- local employment
- plans for locally-directed tourism opportunities
- accommodating aquaculture development
- TimberWest comments:
  - proposes three management zones: high, medium and low sensitivity management zone in the interior area (extensive alternative harvesting systems, clearcuts with reserves and size limits), and site specific VQOs per the FPC for the exterior area
  - the VIRT objectives should apply only to primary values and not whole island; focus visual concerns on public roads
- recognize mineral values and the likelihood of future exploration

24 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included
25 based on VIRT Interim Technical Report, April 1996

Quadra Island cont...

Planning Needs

- need a process for coordination of logging, mining and recreation access
- preparation of a recreation and visual landscape management plan for protected areas and adjacent TSA
- inventory of wildlife habitat and populations
- inventory on recreational opportunities and viewscapes, not just coastal areas
- yield analysis to assess the impact of SMZ objectives on the AAC
- completion of TFL management plan within next six months: need to re-assess SMZ objectives as appropriate

Existing Inventories, Plans and Studies

- MSBTC Tourism Resource Inventory
- MOF Local Resource Use Plan - 1993
- Small Business Program Development Plan - updated 1996
- Archaeological overview assessment completed by University of Victoria in 1960s and 1970s.
- Quadra Island Recreation Society - master plan for recreation
- TimberWest Draft Management Plan, 1996, including proposed FENS
- TimberWest/MOF recreation inventory to RIC standards and the visual landscape inventory
- TimberWest/MOF cave/karst inventory, ecological inventories for woodlots and partial trail inventory
- TimberWest currently undertaking stream classification of Open Bay and Banyon Creek systems
- Quadra Island Official Community Plan, 1996: SMZ mostly designated Silviculture (40 ac min.) and some Rural (10 ac min) with policies regarding resource management and land use, and map schedule of Potential Trail and Park Opportunities (see maps); marine by-laws
- Quadra Island Conservancy & Stewardship Society undertaking Quadra Island Mapping Project
- ongoing wildlife research project near Morte Lake (by Jennifer Balke)
- a trail inventory has been started by local people
- aquaculture capability mapping
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  - Marbled Murrelet

  Blue-listed:

  - turkey vulture - Hyacinthe Bay
- Other species sited: bald eagle, Pine Grosbeak, Northern Goshawk, Western Screech Owl, Northern Pygmy Owl, Great Blue Heron, Ermine and Flying Squirrel

Key Resource Information Gaps

- public interest group comments:
  - lack of detailed mapping and inventory
  - need old growth inventory, ecosystem mapping, updated eagle nesting study, karst studies and comprehensive wildlife inventories
  - critical lack of data on marine component of SMZ

Land Tenure/Capability Classification (VILUP 1994 Thematic Maps)[26]

Crown land	85%
Private land	15%
Tourism potential	no data
Crown reserve	no
Mineral tenures	no
Tree Farm Licence	98%
Timber Licences	5%
Community watershed	no
Private forest lands	no
Archaeology potential	
- high	10%
- moderate	10%
- potential	10%

Land and Resource Tenures

- TimberWest TFL # 47
- Merril and Ring properties within Goal 2 area
- MOF small business development plan
- 2 Woodlots
- Salmon farm tenure MAFF 733 Noram Aquaculture
- 26 mineral claims in good standing
- 135 Crown land tenure files

Other Stakeholders/Interest Groups

- Quadra Island Forest Committee
- Quadra Island Recreation Society
- Quadra Island Salmon Enhancement Society
- Comox-Strathcona Community Resource Board
- Quadra Island Conservancy
- Mitlenatch Field Naturalists
- Outdoor Recreation Council of BC
- Quadra Island Protected Areas Committee
- Nutreco
- Sierra Club
- Quadra Island Eco-Tourism Committee
- Quadra Island Conservancy and Stewardship Society
- Chinese Mountains Preservation Society

Bibliography References:

3, 5, 6, 7, 13, 14

20. Upper Qualicum

Primary SMZ Values[27]

- ecosection biodiversity representation
- recreation opportunities associated with the river
- wildlife and fish habitats and populations

Priority: High

Planning Issues

- biodiversity strategy for second growth forests
- forestry on private lands; effects on SMZ management objectives
- 1 block small business planned; 2 more potential blocks identified
- CWS interest in bird populations (e.g., harlequin ducks)
- ORC suggested viewpoints for visual analysis: from highway very sensitive
- public interest group comments:
  - additional objective: maintain viewscape and recreational opportunities of adjacent park
  - conduct a rate of cut assessment

Planning Needs

- coordination of inventories on Crown and private lands
- integrate planning with FRBC enhanced forestry program
- inventory of wildlife habitat and populations
- inventory on recreational opportunities and viewscapes
- preparation of landscape unit plan, with a focus on demonstration of alternative silvicultural practices
- suggested planning unit: approved landscape unit

Existing Inventories, Plans and Studies

- MELP site series vegetation mapping in upper Qualicum
- recreation inventory up-to-date
- vegetation mapping covering Crown lands
- mineral potential and mineral inventory (MINFILE)

Key Resource Information Gaps

- MELP Data Needs: marbled murrelet habitat use (site specific); northern goshawks habitat use; rare and endangered species (bats, owls, riparian species [water shrew]) and rare plants; bear management studies - to develop management strategies and carrying capacity (i.e., bear den use); songbird communities in old growth and second growth; riparian community studies

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[28]

Crown land	50%	
Private land	50%	
Tourism potential	- high	-
	- moderate	99%
Crown reserve	100%	
Mineral tenures	no	
Tree Farm Licence	no	
Timber Licences	no	
Community watershed	no	
Private forest lands	50%	
Archaeology potential		
- unproven	100%	

Land and Resource Tenures

- MOF Small Business Program
- Texada Logging (1 block - a licensee and adjacent owner)
- Western Forest Products
- Private lands: M&B, Pacific, Texada Logging
- 1 Crown land tenure file

Other Stakeholders/Interest Groups

- Nanaimo Regional District
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:

3, 4, 13

21. Walbran Periphery

Primary SMZ Values[29]

- fish and wildlife habitat
- old growth biodiversity and connectivity
- recreation opportunities

Priority: High

Planning Issues

- fish habitat objectives and special values need to be clarified; special fish values may be within protected area
- public interest group comments:

26information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

27 based on VIRT Interim Technical Report, April 1996

28 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

29 based on VIRT Interim Technical Report, April 1996

Walbran Periphery cont...

  - designate SMZ as high priority for biodiversity
  - establish ecoforestry (alternative harvest systems) in Walbran
  - additional objectives: maintain ecological integrity, viewscape and recreational opportunities of adjacent park; maintain wildlife populations and habitat; extend riparian reserve zone
- TimberWest
  - question the need for additional biodiversity objectives given adjacent Carmanah and proposed surrounding FENs
  - lack of justification for proposed requirements and restrictions on harvesting
- diverse views as to extent and significance of recreation opportunities within SMZ
- specify recreation objectives for the southern part of the SMZ
- ORC suggested viewpoints for visual analysis: from Walbran Creek
- marbled murrelet potential breeding areas
- impact of restrictions on rate of cut outside of the SMZ
- 3 blocks in current development plan (1 harvested, 1 proposed, 1 future)
- access management/liability into the park is an issue
- two forest districts and two TFLs: need for coordination
- recognize mineral values and the likelihood of future exploration

Planning Needs

- enhanced operational plans, coordinating both licensees with a focus on recreation and biodiversity; a coordinated plan does not currently exist
- need for Provincial Park inventory work which complements the SMZ
- suggested longer term development plan (20 years) covering larger area
- coordinated planning framework including standardized and compatible inventories between licensees and standardized process for cut block approval
- preparation of landscape unit plan, with a focus on biodiversity/FEN and WHA designation and visual resource management
- inventory of fish and wildlife habitat and populations
- inventory on recreational opportunities and viewscapes
- suggested planning unit: approved landscape unit

Existing Inventories, Plans and Studies

- management plan for TFL 46, 1996 includes 1:20 K folio mapping (currently under review by government agencies - completion Dec. 1996)
- Carmanah Walbran Master Park Plan
- biodiversity plan prepared for TFL 46
- stream classification currently being updated
- recreation and visual studies using RIC standards completed with management plan
- studies underway by Marbled Murrelet Recovery Team; some northern goshawk studies by MELP
- site series vegetation mapping done for southern area by TimberWest; currently being done by M&B for northern area
- portions of SMZ are being considered as a Scenic Area under the FPC
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  - Sitka spruce - West Walbran Creek
  - trails have been built along Walbran Creek to Anderson Lake

Key Resource Information Gaps

- MELP Data Needs: marbled murrelet habitat use (site specific); northern goshawks habitat use; rare and endangered species (bats, owls, riparian species [water shrew]) and rare plants; bear management studies - to develop management strategies and carrying capacity (i.e., bear den use); songbird communities in old growth and second growth
- some gaps in ecosystem mapping to RIC site series standards, enabling better evaluation for biodiversity planning and mapping of areas susceptible to blowdown, including addressing appropriate natural disturbance type (NDT3 vs. NDT1)
- possible need for CWAP in northern area re terrain stability
- identify stream reach fish values for determination of riparian reserves, and requirements for course woody debris

Land Tenure/Capability Classification (VILUP 1994 Thematic Maps)[30]

Crown land	100%
Private land	0%
Tourism potential - high backcountry activity capability	
Crown reserve	no
Mineral tenures	1%
Tree Farm Licence	100%
Timber Licences	25%
Community watershed	no
Private forest lands	<1%

30 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Archaeology potential	
- unproven	100%

Land and Resource Tenures

- MacMillan Bloedel - TFL 44
- TimberWest - TFL 46
- Hayes Forestry Services
- Mineral Tenures noted on LUCO maps covering about 1% of the SMZ
- no land tenure files

Other Stakeholders/Interest Groups

- Carmanah Forestry Society
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:
3, 4, 13

22. San Juan Ridge

Primary SMZ Values[31]

- upland recreational opportunities and values
- visual qualities associated with trail corridor

Priority: Moderate

Planning Issues

- provide for Kludahk trail requirements; trail does deviate from height of land and includes the majority of potential recreation features in the SMZ
- forest industry recommends 100 m or 50 m trail reserve; question 1 km wide reserve
- some proposed cutblocks very close to the trail (2-3 cutblocks in 1997)
- unclear what the objectives are within the SMZ
- ORC suggested viewpoints for visual analysis: from trail corridor - local study required
- public interest group comments:
  - additional objective: protect rare, threatened and endangered plants; no hunting
  - 100 m trail reserve not wide enough, need a min. of 250 m.
- TimberWest suggests: standard Forest Practices Code with enhancement if necessary where cutblocks cross the trail
- recognize mineral values and the likelihood of future exploration
- boundary does not currently follow all of the San Juan Trail
- rare and endangered plants
- what is the maximum long term protection that a BCFS Recreation Trail can have and is this sufficient?

Planning Needs

- preparation of a recreation plan for hiking trail development and use
- identify appropriate trail reserve width in landscape unit planning
- designate the trail as a BC Forest Service Recreation Trail under the Code
- planning objectives currently being developed for this SMZ
- define a role for the local advisory committee
- MOF to coordinate a management plan between licensees
- suggested planning unit: trail corridor

Existing Inventories, Plans and Studies

- revised Recreation and Landscape Inventory
- Kludahk Trail has been plotted using GPS
- mineral potential and mineral inventory (MINFILE)

Other Resource Features

- Species at risk:
  Blue-listed:
  - White Glacier Lily - Three Arm Creek, Sombrio River and on the ridge above 700 m elevation
  - Menzie's brunet - San Juan Ridge
- San Juan Ridge Ecological Reserve:
  - excellent examples of rare White Glacier Lily

Key Resource Information Gaps

- forest development plan will determine need for archaeological impact assessment

Land Tenure/Capability Classification (VILUP 1994 Thematic maps)[32]

Crown land	100%
Private land	0%
Tourism potential	- low capability
Crown reserve	no
Mineral tenures	no
Tree Farm Licence	95%
Timber Licences	40%
Community watershed	no
Private forest lands	no
Archaeology potential	
- unproven	99%
- potential	1%

31 based on VIRT Interim Technical Report, April 1996
32 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

San Juan Ridge cont...

Land and Resource Tenures

- Western Forest Products
- TimberWest
- 2 land tenure files

Other Stakeholders/Interest Groups

- Kludahk Hiking Club
- Kludahk Outdoors Club
- Sierra Club; Outdoor Recreation Council of BC

Bibliography References:

3, 4, 13

32 information derived from Vancouver Island Land-Use Plan 1994 Thematic maps - LUCO, 1994, or as otherwise updated; this generalized information for selected parameters may be outdated and not all information is included

Annotated Bibliography For Special Management Zones

1. Wright, M.E. 1994. Nestucca Project: Inventory of Department of Fisheries and Oceans Biological Resource Datasets. Can. Manuscr. Fish. Aquat. Sci. 2259: 76p.

52 biological resource datasets within DFO, Pacific Region are described in terms of:

- parameters measured
- form of collection
- geographic extent
- georeference
- collection dates and frequency
- confidentiality
- quality

– resources include salmon, herring, shellfish, groundfish, vegetation and marine mammals

2. Ministry of Environment, Lands and Parks. 1996. Saanich Inlet Study. 35p.

- provide baseline information to make future decisions regarding zoning, land use, habitat management and pollution prevention. Study provided information on following topics:
- public consultation on human water uses, values and concerns
- consultation with First Nations
- surveys of oceanographic properties
- surface current surveys during winter and summer conditions
- review of existing water quality information and environmental criteria
- review of historical fisheries and marine life information
- surveys of intertidal biota, boot and cloud sponge distribution and eelgrass habitat
- survey of sources of fecal contamination and computer modeling of fecal coliform dispersion
- assessment of chemical contamination and computer modeling of sediment transport
- computer modeling of impact of nutrient enrichment on Phytoplankton growth
- computer modeling of rates of water exchange between various parts of the Inlet
- computer modeling of fate of chemical contaminants in tissues and marine sediments, with prediction of assimilative capacity

3.Vancouver Island Tourism Resource Inventory (1992,1996) Coastal Tourism Resource Inventory (1991) Ministry of Small Business, Tourism and Culture

- inventory is map-based at 1:250,000
- identifies important natural and cultural resources, and infrastructure that are important to the tourism industry (e.g., identifies high, medium and low concentrations of whales; or highlight important slopes for heli-skiing and downhill skiing)
- maps can illustrate high, low, medium capability areas for specific tourism activity
- maps can also identify current use of tourism resources

4. British Columbia Conservation Data Centre

The BC Conservation Data Centre's information is managed using the Biological and Conservation Data System (BCD), a software system developed by The Nature Conservancy (US). BCD consists of over 30 types of files linked to topographic maps and manual files.

- **Element Occurrence File:**
  This file is used to manage location-specific records for species and plant communities being tracked by the CDC. Each record includes population and community data, information on environmental features associated with the species or community, and precise geographical and ecological data.
- **Element Tracking File:**
  These are the definition files for each of the species or communities (known as Elements) which the CDC is tracking. They contain taxonomic information, global and provincial rarity ranks (based on degree of endangerment), status on the provincial Red or Blue list and other ecological details for over 1,000 threatened or endangered plant and animal species and plant communities found in British Columbia.
- **Source Abstracts File:**
  This is a bibliography of information sources (currently approximately 6,000 records) which includes published and unpublished reports, field surveys, journal articles, organizations, and

knowledgeable individuals. The sources contained in this database are, in general, focused on rare and endangered species and plant communities.

- **Managed Areas File:**
  This file summarizes information on areas in B.C. that are under some type of special management or ownership, usually with conservation as a primary goal. Area in hectares, ownership, contact information, boundaries and special features are noted for managed areas such as: National and Provincial Parks, Ecological Reserves, Nature Trust Properties, Wildlife Management Areas, Regional Parks, bird sanctuaries and private conservation areas.
- **Sites File:**
  This file, which is currently under development, describes and characterizes sites in B.C. which are of outstanding biological significance. Information available includes comments on the biodiversity significance, key environmental factors, current and past Land-Use, additional information needs and sources, and rare and endangered species and plant communities present at the site.
- **GIS:**
  The CDC has been using the Biotics system since 1998, a customized GIS application designed specifically as a front end for the Biological Conservation Database software used at the BC CDC (and throughout the international network of Natural Heritage Programs and Conservation Data Centres).

5. Guide to British Columbia Ecological Reserves. 1993. B.C. Ministry of Environment Lands and Parks. ISBN 0-7726-0733-8.
This report contains information on location and description of ecological reserves in B.C. including:

- 1:50,000 maps
- purpose of reserve
- location, size, physical and biological features
- outstanding features

6. British Columbia Designated Heritage Sites Registry. 1995. B.C. Ministry of Small Business, Tourism and Culture.
This report details location, name and authority for each heritage site in B.C. The sites are listed by regional district.

7. B.C. Archaeological Site Inventory. B.C. Ministry of Small Business, Tourism and Culture.
The inventory contains identification, location, land status, site description, environment and investigations for each identified archaeological site in B.C. Updated to 1996.

8. Archaeological Field Research in B.C. An Annotated Bibliography. B.C. Ministry of Small Business, Tourism and Culture.
Listing and description of all archaeological field work in B.C. Updated to 1996.

9. Biophysical Suitability of the Western Johnstone Strait, Queen Charlotte Strait and West Coast Vancouver Island Regions for Salmonid Farming in Net Cages, 1989, K. Ricer et. al., Ministry of Agriculture and Fisheries.
An assessment of biophysical capability for fish farming (does not consider market or access elements) including 1:125,000 map atlas. Covers the area from Kelsey Bay north and west to Nitinat Lake and includes oceanographic, biological, hydrologic and meteorological data. Each waterway was rated for 12 or more biophysical characteristics: temp., D.O., salinity, plankton blooms, pollution threats, currents, depth, substrate, geomorphology, etc. Rating of suitability: Good, Medium, Medium with caution for low summer/autumn oxygen levels, Poor, Not Acceptable and NA for Not Acceptable unless large open ocean net cages are used.

10. Nootka Coastal Resource Interests Study, 1989. Ministry of Crown Lands
Mapping of resource interests involving government agencies and public interest groups. CRIS provides a composite descriptive map summary of all critical (C) and important (I) interests of agencies and groups. Information compiled at 1:50,000 scale. A Finfish Aquaculture opportunity map was also produced from the composite interest input map, identifying Conditional areas (applications considered), Limited areas (applications only accepted after resolution of concerns identified on the composite map), No Opportunity (applications not accepted).

11. West Coast Nahwitti Lowlands/Koprino SMZ Subjoining Proposal, May 13, 1996 Progress Report, Western Forest Products
Proposed subjoining scheme, involving: Protected, Regular and modified subpoenas. The protected coastal reserve area runs from San Josef Bay to Cape Perkiness. Wilderness recreation cannot be the focus; access by existing forest roads as well as future park plans and opportunities make the area more appropriate for semi-wilderness and rustic development for day hikes, short overnight trips and campers. A land based (rather than ocean based) recreation focus with emphasis on coastal features. Total protected area: 1,099 ha; 1,001 forested, 962 ha old growth, 39 ha second growth. A detailed analysis was also completed of the viewscape area immediately behind the protected area. This involves 1,990 ha within TFL. Proposed: 2,000 ha reserve (protected area), 7,500 ha special management for visuals and biodiversity/wildlife, 12,200 ha regular FPC standards.

12. Goletas Channel Resource Targets - Low Intensity Area # 117, Thomas R. Cole, September 29, 1995, Richmond Plywood Corporation
Proposed management approach to the SMZ. Total operable area: 1,300 ha; 27% FENs, 11% hydra-riparian areas, 62% forested land available. Rate of harvest for the 405 ha available is estimated at between 15 and 30% (60 - 120 ha first pass development over 15-20 years) Forest types: Spruce-Salmonberry (<2%), Hemlock-Vaccinium (30%), Cedar Salal (68%). Currently very little recreation in the area; some fly-in angling in the lower reaches. Richply proposes a 800m trail linking the inlet to Shushartie Lake, and a 100m management zone surrounding the lake and river system. They have also proposed development of the North Coast Trail. Fisheries reconnaissance completed in 1993. No detailed wildlife inventory.

13. Sierra Club of Western Canada's Submission to the Low Intensity Area Review Committee. 1994; Response to SMZ Questionnaire, September 1996, Sierra Club.
Detailed review of LIAs identified in the LIARC Report, including: guiding principles, proposed SMZ boundary adjustments, objectives, logging status and recommendations. Identification of issues and concerns for each SMZ; suggested expansion of SMZ objectives: some designated LIAs and the methods of logging within them are inappropriate - e.g., 20% of LIAs are already degraded and there are no objectives to restore these; they would prefer that these areas be traded for other forestry areas containing old growth. Secondly, LIAs are intended as buffers around parks and or to provide areas suitable for multiple use such as recreation, tourism, etc. but they are subject to the same type of logging as other areas. SMZ objectives currently do not stipulate alternative forestry practices which would ensure protection of biodiversity. A major objective missing is the need to have SMZ management standards bounded by the AAC. There are also discrepancies in defining LIAs; they are not structured to protect biodiversity; no inventory work to determine qualities within the areas. Priority planning objectives are incomplete. Data gaps which need to be filled are comprehensive wildlife inventories in all the LIAs. Comprehensive recreation and access management plans need to be developed for LIAs with high recreation values (Klaskish-East, Shushartie, Nootka Island) in consultation with First Nations.

14. Quadra Island Official Community Plan, 1996, Comox Strathcona Regional District.
The plan provides a statement of community values and goals with regard to land use and community development. It designates much of the SMZ for Silviculture (S), with some Rural (RU) designation on various private properties. Policies are provided for each designation. The Silviculture designation includes support for FPC implementation, and provides for a minimum parcel size of 16 ha. The Rural designation provides for a minimum parcel size of 4 ha. A schedule to the plan identifies potential trail and park opportunities. The following areas are listed for protection: Village Bay Lakes Chain, Hyacinth Point, Heriot Bay Ridge, Extension of Octopus Islands Provincial Park, Chinese Mountains/Morte Lake/Nugedzi Lakes, Waiatt Bay/Small Inlet/Newton Lake, and Surge Narrows/Settlers Group.

15. Barkley Sound Planning Strategy, 1995, Alberni Clayoquot Regional District.
The Barkley Sound Planning Strategy is a strategic framework for the long-term use, development and management of the lands and resources of Barkley Sound and Alberni Inlet. It represents a common statement of intent on the part of fifteen

participating agencies of the Barkley Sound Planning Committee with regard to land and water use in an area 1,000m upland of high water or 100m elevation. Policies and guidelines may also refer to adjacent watershed areas where they specifically affect management issues in the study area. The Strategy is organized into three parts: a review of the issues and trends, including an overview of land and resource features, a set of goals, objectives and guidelines, and an area designation system which guides the allocation of land and water uses. Six principles form the basis for many of the policies and guidelines: resource sustainability, environmental protection, development suitability, community involvement, land and sea claims, and inter-agency cooperation. Four digitized map schedules are included: Schedule 1- Area Designation, Schedules A - Land and Foreshore Use, B - Recreation and Scenic Features, C- Environmental Features.

16. Spawning Areas of British Columbia Herring, 1989, D.E. Hay, P.B. McCarter, R. Kronlund, C. Roy, Dept. of Fisheries and Oceans

A review, geographical analysis and classification of herring spawning areas. Provides analysis of 50 years (1937-1986) of records, based on approx. 20,000 annual records of spawning by fishery officers.

17. Nootka Sound Recreation Initiative, 1993, Ministry of Forests, Campbell River.

A committee has been established to address recreation issues in Nootka Sound. In the long term, a comprehensive land/water use plan will be required. The current issues include: insufficient public recreation sites, unauthorized float cabins, commercial recreation development (including use of vessels for commercial purposes). A series of recommendations were developed by the committee and some of these are currently being implemented.

Appendix 4: Planning Framework Statements For Coastal Planning Units

CPU-1: Lanz-Cox Islands

General Description

Open ocean with highly exposed offshore islands. Oceanographically, the salinity values of the open Pacific.

Planning Issues

- recreational access within Scott Islands Park is limited to Lanz and Cox Islands. Remoteness and difficult ocean conditions limit accessibility to these locations

Planning Needs

- development of a code of conduct for wildlife viewing operators important to tourism resource management
- need to manage recreational use to ensure wildlife is not jeopardized
- may have future need for mineral, oil and gas exploration or development infrastructure support

Key Resource Information Gaps

- need to identify whether any cultural resources exist
- specific visual resources not yet identified
- opportunities for wildlife viewing need definition

Resource Uses and Potential

Aquaculture
- low capability for aquaculture using existing technologies and culture species

Marine Fish
- important groundfish area
- squid spawning along Vancouver Island and Scott Island shoreline
- important geoduck and red sea urchin beds around Lanz-Cox

Marine Wildlife
- there are large critical seabird colonies and very important sea lion haulouts on Lanz-Cox Islands
- Anne Vallee ER is the site of the largest seabird and sea lion colonies in British Columbia
- principal migratory corridor for gray whales
- islands are home to endemic rodents

Minerals, Oil and Gas
- good potential for offshore oil and gas in sedimentary basins extending into area; Queen Charlotte Basin est. 3 billion bbl recoverable oil and 22 tcf recoverable gas; Winona Basin and others total est. 12 - 14 tcf recoverable gas.
- offshore oil and gas lease area extending into CPU under current moratorium
- potential for heavy mineral-rich sands

Recreation Resources
- high wildlife values
- occasional diving opportunities

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Total # Tenures: 0

Other Land Use Designations

Beresford Island, Sartine Island and Triangle Island are Ecological Reserves (Anne Vallee ER on Triangle Island)

Existing Inventories/Plans/Studies

Northern Vancouver Island Forest Recreation and Tourism Opportunities Study

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs
Mount Waddington Community Resource Board
Mount Waddington Regional District

CPU-2: Northwest Coast (Lawn Point to Hope Island)

General Description

This planning unit consists of open ocean and highly exposed shoreline with few embayments. The salinity is always above 29 ppt and is highest during late summer when surface temperatures briefly reach 13°C.

Planning Issues

- significant portions of upland area adjacent to the planning unit have been dedicated to recreational activities (Raft Cove and Cape Scott Park)
- Mount Waddington Regional District report: Northern Vancouver Island Forest Recreation and Tourism Opportunities Study:
  - ranks this CPU as having the best heritage site viewing within the Mount Waddington Regional District; sites include Cape Scott and San Josef Bay.
  - the location of the numerous heritage sites is confidential. The active involvement of First Nations communities will be essential to develop tourism based on these sites.
  - constraints to developing heritage resources include preserving the resources, ease of access, land tenure, lack of funds to restore and interpret the building and artifacts.

Planning Needs

- tourism access needs to be considered in integrated planning
- need to preserve visual quality from upland protected areas
- may have future need for onshore mineral, oil and gas exploration or development infrastructure support

Key Resource Information Gaps

None identified to date

Resource Uses And Potential

Cultural Heritage Resources
- 13 medium and high density heritage/traditional cultural sites identified

Forest Use
- limited potential for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities exist along significant portions of the shoreline in this zone

Marine Fish
- important shrimp area off Quatsino Sound
- important groundfish area from Quatsino to Cape Scott
- important salmon area off San Josef Bay and offshore Raft Cove to Topknot Point

Marine Wildlife
- primary route of the northern group of orcas
- gray whale milling areas
- several sea lion haulouts
- several seabird colonies

Minerals, Oil and Gas
- good potential for offshore oil and gas in adjacent offshore sedimentary basins
- offshore oil and gas lease area extending into CPU under current moratorium
- potential for heavy mineral-rich sands, paleoplacers

Tourism Resources
- marine cruising, kayaking, sport fishing and diving

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Total # Tenures: 0

Existing Inventories/Plans/Studies

Northern Vancouver Island Forest Recreation and Tourism Opportunities Study

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs
Mount Waddington Community Resource Board
Mount Waddington Regional District

CPU-3: Northwest Queen Charlotte Strait

General Description

Goletas Channel is a straight and broad waterway bordered on both sides by a near continuous line of rocky cliffs. The northwest is closed off by Nahwitti Bar, an area of very rough water. Seasonal winds are northwest in summer and southeast in winter. Waves can reach up to 2.4 m in the channel. Water temperatures for the upper 10 metres vary from 7 to 13°C over the year, while the salinity ranges from 30 to 32 ppt.

Planning Needs

- may have future need for onshore mineral, oil and gas exploration or development infrastructure support

Key Resource Information Gaps

- shellfish potential unknown
- visual resources are not identified. Need to consider the adjacent SMZ and PAs (Cape Scott Park and God's Pocket) and the ferry route through Browning Pass when determining the VQOs

Resource Uses And Potential

Cultural Heritage Resources
- medium and high density heritage/ traditional cultural sites identified on Hope Island

Forest Use
- important area for log-handling sites and associated infrastructure
- opportunities for log salvage and hand logging along sections of the shoreline

Marine Fish
- geoduck beds on the northeast side of Hope Island
- high herring spawn concentration in outer Bull Harbour
- commercial groundfish northeast of Vansillart Island and southeast of Doyle Island
- major salmon recreational fishing and trolling areas east of Hope and Nigei Islands
- exceptional invertebrate species diversity and abundance
- rockfish spawning and feeding area

Marine Wildlife
- important migratory route for orcas and dolphins
- several seal and seal lion haulouts, particularly at Rollie Bay and Hope Island
- sea bird colonies are found in Queen Charlotte Strait

Minerals, Oil and Gas
- good potential for offshore oil and gas in adjacent offshore sedimentary basins
- offshore oil and gas lease area extending into CPU under current moratorium
- potential for heavy mineral-rich sands, paleoplacers, nearshore aggregate resources

Recreation Resources
- popular marine cruising destinations throughout planning unit: Browning Pass, God's Pocket Marine Park
- Bull Harbour is a favoured local anchorage
- additional opportunities for kayaking and angling within Nahwitti/Shushartie extension of Cape Scott Provincial Park

Tourism Resources
- extensive angling, scuba, cruising and kayaking opportunities
- Browning Pass possesses high potential for marine tourism

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Community	Community Facility	1
Residential	Private Moorage	1
Transportation	Public Wharf	1
Total # Tenures:		**3**

Existing Inventories/Plans/Studies

Northern Vancouver Island Forest Recreation and Tourism Opportunities Study

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs
Mount Waddington Community Resource Board
Mount Waddington Regional District
Malcolm Island Environmental Protection Society
BC Wild

CPU-4: Southern Queen Charlotte Strait and Broughton Strait West

General Description

Waters are cool (5.8-10.8°C). Except for Port Hardy and Beaver Harbour, the southwest shore coastline is exposed, (winter swells to 3.0 m) and shallow for 2 - 4 km offshore.

Planning Issues

- Mount Waddington Regional District Northern Vancouver Island Forest Recreation and Tourism Opportunities Study highlights areas within this CPU with a high ranking for cruising, heritage site viewing, kayaking, and wildlife viewing.
  - constraints to cruising include the distance between harbours and anchorages, availability of fuel, and marine supplies and services
  - constraints to kayaking include the wide distribution of sites
  - likely to be increased competition among cruisers, kayakers, floating fishing camps and aquaculture operations for the best bays and coves
  - the location of the numerous heritage sites is confidential. The active involvement of First Nations communities will be essential to develop tourism based on these sites.
  - constraints to developing heritage resources include preserving the resources, ease of access, land tenure, lack of funds to restore and interpret the building and artifacts

Planning Needs

- mineral, oil and gas exploration and development would require infrastructure support facilities

Key Resource Information Gaps

None identified at this time

Resource Uses And Potential

Aquaculture
- moderate potential for salmon farming in Beaver Cove, the mouth of Port Hardy and Western Broughton Strait
- potential for shellfish culture on Malcolm Island

Cultural Heritage Resources
- high density of cultural heritage sites located in the vicinity of Hardy Bay, Beaver Harbour, and Nimpkish River
- medium density of cultural heritage sites identified along coast

Forest Use
- important area for log-handling sites and associated infrastructure

Marine Fish
- important herring spawn areas in Port Hardy, Beaver Harbour, Deer Islands and along shoreline from Beaver Harbour to Cluxewe River
- major salmon and groundfish areas and seasonal concentrations of dogfish in west Broughton Strait
- clam beaches and commercial geoduck areas along the coastline from Port McNeill to Beaver Cove

Marine Wildlife
- several species of whales; resident and transient orca pods; dolphin and porpoise
- many major sea bird colonies identified

Minerals, Oil and Gas
- important marine extension of Suquash Coal basin: resource est. 9 million tonnes coal (marine) and 9.1 million tonnes (terrestrial); possible coal-bed methane
- potential for paleoplacers and aggregate resources

Recreation Resources
- coastal area experiences high recreational use
- important land/water interface: Peel, Cormorant and Malcolm Islands

Tourism Resources
- established wildlife (orca) viewing, angling, kayaking, scuba and marine cruising area

Land and Resource Tenures

The following list of tenures is generalized informarion meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Finfish Tenure	1
Commercial	Commercial Wharf	3
	General Commercial	27
	Marina	5
Industrial	General Industrial	2
	Log Handling and Storage	9
Institutional	Institutional Miscellaneous	2
	Local/Regional Park	1
	Public Works	2
Misc. Land Use	Environmental Protection	1
	Other	2
Residential	Private Moorage	1
Transportation	Public Wharf	8
	Navigational Aid	1
	Ferry Terminal	3
Utility	Electric power Line	3
	Sewer/Effluent Line	2
	Telecommunication Line	1
Total # Tenures:		**74**

Other Land Use Designations

- pending WMA on Cluxewe Estuary and foreshore; reserves in Hardy Bay

Existing Inventories/Plans/Studies

Northern Vancouver Island Forest Recreation and Tourism Opportunities Study

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs
Mount Waddington Community Resource Board
Mount Waddington Regional District

CPU-5: Johnstone Strait

General Description

Generally exposed and subject to wind driven waves. Turbulent mixing of water masses occurs at sills at both ends of Broughton Strait resulting in significant upwelling of nutrients and increased phytoplankton productivity. Currents in excess of 2 m/sec occur in the area's northern entrance.

Planning Issues

- due to sensitivity of Robson Bight, there is no public access to the landbase of the Michael Bigg Ecological Reserve
- large volume of marine traffic increases risk to wildlife due to pollution
- Council of B.C. Yacht Clubs submission:
  - Location of proposed boat havens(# refers to the Council's Boat Haven List)
  #19 Otter Cove Chart 3539 Map 92K 033
  #19A No Name Cove West of Humpback Bay Chart 3544 Map 92K 032
  - request that Special Management Areas be created with the immediate upland of these proposed boat havens

Planning Needs

- possible need for shore-based development infrastructure to support mineral opportunities
- preservation of visual quality from travel corridor required

Key Resource Information Gaps

None identified at this time

Resource Uses and Potential

Aquaculture
- no existing fish farms in the planning unit
- moderate capability for aquaculture throughout the planning unit, however, there are periodic low oxygen levels in summer and autumn

Cultural Heritage Resources
- high density heritage/traditional cultural sites located near Rock Bay
- medium density heritage/traditional sites identified in the vicinity of Sayward

Forest Use
- important area for log-handling sites and associated infrastructure
- opportunities for log salvage and hand logging along sections of the shoreline

Marine Fish
- whole strait is a major salmon migratory route
- commercial concentrations of shrimp and prawns from Cederstedt Creek to Palmer Bay
- significant crab fishing area in Kelsey Bay
- important groundfish areas from Rocky Point to the southern end of the planning unit

Marine Wildlife
- internationally recognized for concentration of resident orcas at Robson Bight
- limited numbers of seals, sea lions and porpoises in area

Minerals, Oil and Gas
- nearshore potential for aggregate and possibly paleoplacer resources

Recreation Resources
- travel corridor for cruise ships and marine cruising

Tourism Resources
- internationally significant wildlife viewing, particularly in vicinity of Robson Bight
- cruise ship activity, marine cruising, angling and kayaking, with existing infrastructure and extensive current use

Visual Resources
- topography makes shoreline prominent

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Commercial	General Commercial	2
Industrial	Log Handling and Storage	7
Institutional	Public Works	1
Transportation	Public Wharf	2
Utility	Sewer/Effluent Line	2
Total # Tenures:		**14**

Johnstone Strait cont...

Other Land Use Designations

WMA at Kelsey Bay

Existing Inventories/Plans/Studies

- Northern Vancouver Island Forest Recreation and Tourism Opportunities Study
- Provincial Boat Havens Catalogue & User Survey: West Coast Vancouver Island & Campbell River Fiordland Recreation Area.
  Council of B.C. Yacht Clubs

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs
Mount Waddington Community Resource Board
Mount Waddington Regional District
Outdoor Recreation Council of British Columbia

CPU-6: Quadra/Cortes Strait

General Description

An island archipelago with numerous sheltered waterways and embayments. The area generally contains water that is well mixed and has sub-areas that are exceptionally stable. The exception to this is Discovery Passage which has cold water, is exposed, has high current velocities and is subject to pollution.

Planning Issues

- recreational opportunities are dependent upon continued access to shoreline features
- Comments from Public submissions:
  - need to treat the potential for cultivation use as a resource value rather than as a subzone to allow for multiple resource use
  - anchorage, views from upland residences and trails should be added to visual resources
  - add camping and recreational shellfish gathering to recreation resources
  - tourism resources should include recreational diving and sport fishing
  - include seal and sea-lion haulouts under marine wildlife. Otters are present throughout the year. Cormorants and Marbled Murrelets use the area.
  - need to identify the areas used by wintering birds
- Council of B.C. Yacht Clubs submission defined good recreation opportunities in the CPU as:
  - sport fishing, kayaking, boating, diving
  - cruise ships travel in the area
  - ranked this CPU as the most important for planning recreational activities.
- Regional District of Comox-Strathcona documents
  1. Bylaw No. 1740. Cortes Official Community Plan Bylaw, 1995 - Water Resource Area Policies (pp 3-14, 3-15)
  2. By-Law No. 1213. Quadra Island Zoning By-Law, 1990 includes marine and aquaculture zones
  3. By-Law No. 1460. Electoral Area 'J' - Desolation Sound Rural Land Use Bylaw, 1993 is intended as an initial step towards integrated resource management planning for the area and includes marine and aquaculture zoning

Planning Needs

- important mining area - Quadra Island (e.g., Rock Bay) may require load-out facilities to support future on-island mining; potential offshore extensions of on-shore mineral deposits.
- Comments from Public submissions:
  - need to include Regional District of Comox-Strathcona planning of Area "J" in the planning of CPU-6
  - need to identify the areas used by wintering birds

Key Resource Information Gaps

No information provided

Resource Uses and Potential

Aquaculture
- water conditions in several sub-areas are at the physiologically optimal temperature for the culture of many species, particularly salmonids

Cultural Heritage Resources
- very high concentration of heritage/traditional cultural sites on Quadra, Cortes, Read and Marina Islands

Forest Use
- important area for log-handling sites and associated infrastructure
- opportunities for log salvage and hand logging along sections of shoreline

Marine Fish
- significant clam beaches from Kanish Bay to Cape Mudge and from Campbell River to Cape Lazo
- commercial geoduck concentrations along the east side of Cape Mudge and the west sides of Sutil Point on Cortes Island and Marina Island
- wild oyster concentrations on the southeastern sides of Quadra, Read and Cortes Islands
- important herring spawn areas in Kanish Bay, Heriot Bay, Sutil Point, Cape Mudge, southwest Marina Island, Southern Von Donop and Read Island

- significant salmon migration and concentration area in Discovery Passage, Village Bay and the area surrounding Cortes Island
- important groundfish area along the coastline of all islands in the planning unit
- diverse invertebrate life in Seymour Narrows
- significant Pacific octopus populations around Steep Island
- high concentrations of invertebrate life around Octopus Island and in Surge Narrows

Marine Wildlife

- important eagle habitat in Discovery Passage, Hoskyn and Okisollo Channels
- several small pockets throughout unit are important wintering areas for migratory birds (ducks, geese)
- very important cormorant colony near Quathiaski Cove
- seal and sea lion concentrations in Deep Water bay, Breton Islands
- migratory routes for Pacific White Sided Dolphins, Dal Porpoises and transient Orcas

Minerals, Oil and Gas

- potential tidal-energy sites
- Quinsam coalfield contains 33.33 million tonnes of coal proven reserves; a total of 52.13 million tonnes of coal resources
- potential for aggregate resources (Georgia Basin)
- high potential for oil and gas (Georgia Basin - total for Winona, Tofino-Fuca and Georgia Basins is 12 to 14 trillion cubic feet)

Recreation Resources

- high sport fishing demand, beach activities, kayaking/canoeing and cruising, recreational diving opportunities
- shoreline trails identified in Official Community Plan

Tourism Resources

- high-value marine touring and kayaking area
- well developed commercial recreational angling opportunities.

Visual Resources

- travel corridor; numerous routes

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Finfish Tenure	10
	Shellfish Tenure	103
Commercial	Commercial Wharf	7
	General Commercial	15
	Marina	9
Community	Outdoor Recreation Area	1
Industrial	General Industrial	5
	Log Handling and Storage	24
Institutional	Institutional Miscellaneous	3
	Local/Regional Park	1
	Public Works	1
Misc. Land Use	Ecological Reserve	1
	Fisheries Facility	1
	Public Access	1
	Other	4
	Planning/Development Project	1
	UREP/ Recreation Reserve	5
Residential	Private Moorage	67
Transportation	Navigational Aid	1
	Public Wharf	10
Utility	Electric Power Line	3
	Sewer/Effluent Line	3
	Miscellaneous Utility	1
Total # Tenures:		**277**

Other Land Use Designations

WMA at Campbell River Estuary

Existing Inventories/Plans/Studies

Bylaw No. 1740 Cortes Official Community Plan Bylaw, 1995
Campbell River Estuary Management Plan
Electoral Area 'J' - Desolation Sound Rural Land Use Bylaw No. 1460, 1993
A Preliminary Biophysical Evaluation of Hoskyn Channel
Quadra Island Zoning By-Law No. 1213, 1990

Stakeholders/Interest Groups

Bruce Davies
L.A.Farqharson
Judy Johnson
Ralph and Lannie Keller
Campbell River Community Fisheries Committee
Council of B.C. Yacht Clubs
Quadra Island Protected Areas Committee
Sierra Club of Quadra Island
Quadra Island Conservancy and Stewardship Society
Mitlenatch Field Naturalists Society
District of Campbell River
Regional District of Comox-Strathcona

CPU-7: Cape Mudge/Cape Lazo

General Description

This planning unit is characterized by gradual sloping foreshore, many extensive shoals along coastline and large beaches. The region south of Cape Mudge to Willow Point is renowned for large rip tides. This is due to the relatively long wind fetch and strong tidal currents that surge south from Discovery Passage. There is less tidal current further south, and several accretion type beaches along shoreline. Heavy residential development along the shoreline.

Planning Issues

- Council of B.C. Yacht Clubs submission defined good recreation opportunities in the CPU as beach activities and sport fishing
- cruise ships travel in the area
- need to consider the Regional District of Comox-Strathcona Bylaw No. 1857 Oyster Bay - Buttle Lake Official Community Plan Bylaw, 1996 which includes planning for the surface water extending into the Strait of Georgia

Planning Needs

- potential need for onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas

Key Resource Information Gaps

- specific visual resources not yet identified

Resource Uses and Potential

Aquaculture
- no sites are active in this area

Cultural Heritage Resources
- high density sites have been located in the vicinity of Comox
- a medium density site is located near Oyster River

Forest Use
- important area for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities along sections of shoreline

Marine Fish
- important coho rearing area
- traditional pacific cod harvesting area
- important geoduck and clam fishing area; important groundfish area along the length of this coastline
- important spawn area particularly around Cape Lazo
- Pacific cod spawning around Cape Lazo
- shellfish resources at Oyster Bay

Marine Wildlife
- wintering area for brant, ducks and geese near Cape Lazo and offshore wintering area for waterfowl in Georgia Strait from Quadra Island to southern boundary
- critical marine bird feeding area (gulls, murrelet)

Minerals, Oil and Gas
- the Comox Coal Basin contains 47.5 million tonnes of proven reserves, 261.4 million tonnes resources (>90% underground mineable). The Comox Coal Basin extends beneath the Strait of Georgia for an undetermined distance
- good potential for coalbed methane (clean fuel resource totaling 1 trillion cubic feet on Vancouver Island)
- potential for aggregate resources (Georgia Basin)
- some gas potential below Georgia Basin

Recreation Resources
- limited sport fishing and bird watching

Tourism Resources
- extensive existing infrastructure and use, based mainly on angling and family activities (camping, cruising, etc.)

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Commercial	Commercial Wharf	3
	General Commercial	5
Institutional	Institutional Miscellaneous	1
	Local/Regional Park	3
	Public Works	1
Misc. Land Use	Fisheries Facility	1
	Military Site	2
	Other	1
	UREP/ Recreation Reserve	2
Residential	Residential Miscellaneous	1
Total # Tenures:		**20**

Existing Inventories/Plans/Studies

Oyster Bay - Buttle Lake Official Community Plan Bylaw, 1996

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs
Regional District of Comox-Strathcona
Oyster Bay Association
Oyster River Enhancement Society

CPU-8 Baynes Sound

General Description

In Baynes Sound the mean monthly water temperature is 14.0 to 17.6°C. Comox Harbour is a large, productive estuary bounded by gentle sloping sand and gravel beaches. The sound is relatively sheltered with reduced wind and wave heights. The sea surface salinity is strongly affected by estuarine influx and the mean surface salinity ranges from 26 to 28 ppt increasing with distance away from the mouth of Comox Harbour.

Planning Issues

- the majority of the provincial shellfish culture industry is located in this planning unit. Maintaining high water quality is critical
- Council of B.C. Yacht Clubs submission defined beach activities as a good recreation opportunity
- need to consider the Regional District of Comox-Strathcona's Baynes Sound Plan which has a zoning bylaw governing the use of water surfaces

Planning Needs

- potential need for onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas

Key Resource Information Gaps

- Town of Comox submission states a list of archaeological sites is available from the Archaeology Branch.
- specific visual resources not yet identified

Resource Uses and Potential

Aquaculture
- very high aquaculture capability and very intense use for aquaculture

Cultural Heritage Resources
- high density burial site located in Buckley Bay

Forest Use
- important area for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities along sections of shoreline

Marine Fish
- important crab grounds at the mouth of Comox Harbour
- important herring spawn area
- important clam beaches along the Vancouver Island coastline in this planning unit
- significant salmon concentrations near south Denman Island

Marine Wildlife
- significant marine bird habitat - trumpeter swan, marbled murrelet, water birds and harlequin ducks
- seal and sea lion haulouts at Fanny Bay

Minerals, Oil and Gas
- some gas potential below Georgia Basin
- the Comox Coal Basin contains 47.5 million tonnes of proven reserves, 261.4 million tonnes resources (>90% underground mineable). The Comox Coal Basin extends beneath the Strait of Georgia for an undetermined distance
- good potential for coalbed methane (clean fuel resource totaling 1 trillion cubic feet on Vancouver Island)
- potential for aggregate resources (Georgia Basin)
- the Cumberland coalfield is located midway along the length of the Comox Coal Basin
- the Tsable River mine is to the east, containing 11 million tonnes proven reserves, 87.9 million tonnes total resources

Recreation Resources
- diving and sport fishing, kayak/canoe area; extensive use by various industries

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Shellfish Tenure	62
Commercial	Commercial Wharf	1
	General Commercial	8
	Marina	2
Industrial	General Industrial	1
	Log Handling and Storage	5
Institutional	Institutional Miscellaneous	1
	Local/Regional Park	1
Misc. Land Use	Environmental Protection	1
	Military Site	2
	Other	4
	Planning/Development Project	1
	UREP/ Recreation Reserve	1
Residential	Private Moorage	2
Transportation	Public Wharf	4
Utility	Electric Power Line	3
	Sewer/Effluent Line	3
Total # Tenures:		**102**

Baynes Sound cont...

Existing Inventories/Plans/Studies
Baynes Sound Plan

Stakeholders/Interest Groups

Baynes Sound Stewardship Action Group
Council of B.C. Yacht Clubs
Courtenay River Estuary Management Group
Regional District of Comox-Strathcona
Town of Comox
Comox Watershed Assembly

CPU-9 Strait of Georgia to Cowichan Bay

General Description

This planning unit includes most of the Vancouver Island coastline of the Strait of Georgia. The coastline is moderately indented with many local tidal streams. The area is heavily urbanized and subject to sewage and industrial pollution. The Fraser plume influences the area.

Planning Issues

- the major constraints to aquaculture include extensive sanitary closure for shellfish, restrictive regional zoning and proximity to human settlement
- Regional District of Nanaimo documents
  - Growth Management Plan has a policy to discourage further development of the remaining natural segments of the coastal zone
  - Growth Management Plan has a policy to protect or restore floodplains and other aquatic features to a natural condition
  - draft Nanoose Bay Official Community Plan coastal zone management section policies include discouraging any development that impedes public access to the foreshore

Planning Needs

- need to maintain high local water quality which is important for tourism, aquaculture, and wildlife
- need to retain water access to Crown lands to preserve recreational opportunities
- draft Nanoose Bay Official Community Plan coastal zone management section policies include:
  - encouraging the development of a coastal resource inventory
  - requesting a cumulative impact assessment for new lease agreements

Key Resource Information Gaps
None identified to date

Resource Uses and Potential

Aquaculture
- moderately to highly capable for shellfish and moderately capable for salmon culture
- subject to periodic harmful algae blooms

Cultural Heritage Resources
- high density sites located at Nanoose, Nanaimo: Newcastle Island, and Maple Bay

Forest Use
- important area for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities along sections of the shoreline

Marine Fish
- important crab grounds from Nanoose Bay to Duke Point and in Ladysmith Harbour and Cowichan Bay
- significant shrimp and prawn populations south of Gabriola to the mouth of Sansum Narrows and in Saanich Inlet
- significant clam and geoduck concentrations along the coastline for the majority of this planning unit
- oyster concentrations in and around Nanoose and Ladysmith Harbours and Cowichan Bay
- important herring spawn areas extend from Baynes Sound to Departure Bay and from Duke Point to Ladysmith Harbour
- significant salmon grounds along the length of this planning unit

Marine Wildlife
- from northern boundary to Cowichan Estuary, the immediate coast and nearshore area are important wintering areas for brant, geese and ducks
- Winchelsea Island to adjacent Vancouver Island coast is an important area for sea lions, bird colonies, eagles, cormorants, alcids, oyster catchers and numerous harbour seal haulouts
- very important bird colonies for cormorants, alcids and oyster catchers at Five Finger Islands
- rare diving duck habitat exists

Minerals, Oil and Gas
- the Comox Coal Basin contains 47.5 million tonnes of proven reserves, 261.4 million tonnes resources (>90% underground mineable). The Comox Coal Basin extends beneath the Strait of Georgia for an undetermined distance
- good potential for coalbed methane (clean fuel resource totaling 1 trillion cubic feet on Vancouver Island)
- potential for aggregate resources (Georgia Basin)

- the Tsable River mine is to the west, containing 11 million tonnes proven reserves, 87.9 million tonnes total resources
- contains entire Nanaimo Coal Basin, extends into Georgia Strait, previously mined in Nanaimo Harbour, 3.343 million tonnes Proven Reserves, 7.667 million tonnes total resources
- the Cowichan Basin and Gulf Islands are extensions of the Nanaimo Basin; there are known coal occurrences but there is very low potential
- important gas potential beneath Georgia Basin is largely untested

Recreation Resources

- sport fishing, diving, kayaking/canoeing, cruising and many water-based recreational activities

Tourism Resources

- extensive tourism infrastructure is based on scenic attractions, beach activities, wildlife viewing and angling opportunities

Visual Resources

- extensive settlement area

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Finfish Tenure	3
	Shellfish Tenure	17
Commercial	Commercial Wharf	8
	General Commercial	24
	Marina	19
Community	Community Facility	1
Industrial	General Industrial	3
	Log Handling and Storage	35
Institutional	Institutional Miscellaneous	4
	Local/Regional Park	12
	Public Works	4
Misc. Land Use	Fish and Wildlife Management	1
	Fisheries Facility	1
	Military Site	4
	Other	5
	Scientific Research	2
	UREP/ Recreation Reserve	10
Residential	Private Moorage	67
	Rural Residential	16
	Residential Miscellaneous	10
	Seasonal Residential	1
Transportation	Public Wharf	3
	Roadway	1
Utility	Electric Power Line	2
	Sewer/Effluent Line	14
	Telecommunication Line	4
	Water Line	2
Total # Tenures:		**273**

Other Land Use Designations

WMA extends from Englishman River Estuary to Little Qualicum Estuary (all inclusive). There is also a potential WMA in Chemainus

Existing Inventories/Plans/Studies

Cowichan River Estuary Management Plan
Growth Management Plan for the Regional District of Nanaimo
Nanoose Bay Official Community Plan Bylaw No. 1118 (draft)

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs
Cowichan Valley Regional District
Cowichan Community Land Trust
Regional District of Nanaimo

CPU-10 East Saanich Inlet to Race Rocks

General Description

This planning unit includes the east coast of Saanich Inlet to Race Rocks. It is generally a heavily urbanized coastline. The area is less influenced by the Fraser plume. The area is subject to sewage pollution. Unique deep fjord environment.

Planning Issues

- maintenance of acceptable water quality a factor in tourist resource
- the major constraints to aquaculture include extensive sanitary closure for shellfish, restrictive regional zoning and proximity to human settlement
- Council of B.C. Yacht Clubs submission
  - Location of proposed boat havens (# refers to the Council's Boat Haven List)
    #11 Tod Inlet
    Chart 3441 Map 92B O53
  - request that Special Management Areas be created with the immediate upland of these proposed boat havens
- Cowichan Valley Regional District Cobble Hill Official Community Plan shore zone management (sec. 4.1) policies include establishing specific zones for marine uses

East Saanich Inlet to Race Rocks cont...

- Capital Regional District Parks' Regional Green/Blue Spaces Strategy includes the following recommendations regarding the coastal zone:
  - Capital Regional District Parks' Regional Green/ Blue Spaces Strategy identifies the following Blue Spaces:
    - Esquimalt Harbour to Sooke Basin
    - Saanich Inlet
    - several other areas on the south side of Saanich Peninsula

Planning Needs

- Capital Regional District Parks' Regional Green/Blue Spaces Strategy includes the following recommendations regarding the coastal zone:
  - transfer vacant Crown land with regional green/ blue space value to a government agency, local government, or recognized non-profit organization that has a natural-area conservation mandate
  - establish marine protected areas
- possible future maintenance/ staging area for future offshore oil and gas platforms

Key Resource Information Gaps

Specific visual resources not yet identified

Resource Uses and Potential

Aquaculture
- the area is moderate to highly capable for shellfish culture and moderately capable for salmon culture, however, it is subject to periodic harmful algae blooms

Cultural Heritage Resources
- numerous high density sites of heritage/traditional cultural significance located along the coast of the Saanich Peninsula, Victoria Harbour and Perry Bay

Forest Use
- important area for log-handling sites and associated infrastructure

Marine Fish
- important crab grounds extend from along the eastern shores of Saanich Peninsula and along the Victoria and Colwood waterfront
- significant abalone concentrations in Ballenas Channel and along the coastline near Swartz Bay
- important herring, shrimp and prawn spawn areas extend from Brentwood Bay to the Swartz Bay terminal and from the Gorge to Esquimalt Harbour and the Royal Roads waterfront

Marine Wildlife
- numerous harbour seal haulouts and bird colonies throughout
- important sea lion haulout at Race Rocks
- important cormorant, oyster catchers and guillemot colonies at Race Rocks, Chain Islet, Gordon Head, Halibut and Piers Islands

Minerals, Oil and Gas
- important potential for aggregate resources and potential paleo-placers (derived from Leech R. fault)
- ongoing requirement for barge load-out infrastructure (aggregates, energy products, limestone, rip-rap)
- undeveloped tidal energy

Tourism Resources
- extensive tourism infrastructure is based on scenic attractions, beach activities, whale and wildlife viewing and angling opportunities

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Commercial	General Commercial	2
	Marina	97
Industrial	General Industrial	2
Institutional	Institutional Miscellaneous	7
	Local/Regional Park	11
	Public Works	3
Misc. Land Use	Ecological Reserve	2
	Fish and Wildlife Management	1
	Military Site	2
	Public Access	2
	Other	3
	UREP/ Recreation Reserve	1
Residential	Private Moorage	129
	Residential Miscellaneous	8
Transportation	Public Wharf	4
	Roadway	2
Utility	Electric Power Line	6
	Sewer/Effluent Line	4
	Water Line	4
	Miscellaneous Utility	1
Total # Tenures:		**291**

Existing Inventories/Plans/Studies

Cobble Hill Official Community Plan. Cowichan Valley Regional District
Mill Bay - Malahat Official Settlement Plan
Provincial Boat Havens Catalogue & User Survey: West Coast Vancouver Island & Campbell River
Fiordland Recreation Area. Council of B.C. Yacht Clubs
Regional Green/Blue Spaces Strategy, Capital Regional District Parks

Stakeholders/Interest Groups

Capital Regional District
Council of B.C. Yacht Clubs
Cowichan Valley Regional District
Outdoor Recreation Council of British Columbia

CPU-11 Race Rocks to Cape Beale

General Description

The Juan de Fuca Strait is exposed to the Pacific Ocean which keeps water temperature below 12°C below depths of 10 m for most of the year. Salinity in the upper layer can range from 26-28 ppt during spring runoff, to 33 ppt at the entrance to the Strait in the summer. This is a high salinity, high tidal current area. There are few major indentations in the coastline with Sooke Basin, Port San Juan, Sequim Bay and Nitinat Lake as exceptions. The shoreline ranges from rocky intertidal platforms that are engulfed in kelp in summer, to small beaches consisting of pebbles and cobbles in the eastern portion and many small pocket beaches of coarse sediments and a few of sand in the west.

Planning Issues

- Capital Regional District Parks' Regional Green/Blue Spaces Strategy identifies the following Blue Spaces:
  - Loss Creek, Jordan River and San Juan River estuaries
  - three other areas on the coast

Planning Needs

- Capital Regional District Parks' Regional Green/Blue Spaces Strategy includes the following recommendations regarding the coastal zone:
  - transfer vacant Crown land with regional green/blue space value to a government agency, local government, or recognized non-profit organization that has a natural-area conservation mandate
  - establish marine protected areas
- potential need for onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas

Key Resource Information Gaps

None identified to date

Resource Uses and Potential

Cultural Heritage Resources
- 7 moderate and high density sites located along the coast
- high density sites identified at Beechey Head and Sooke

Forest Use
- important area for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities along sections of the shoreline

Marine Fish
- important crab grounds in Sooke Harbour and adjacent to Nitinat Lake, Jordan River to Sherringham Pt. and in Port San Juan
- important commercial groundfish areas in Sooke Bay, fronting Port San Juan and Carmanah Point
- important salmon holding grounds throughout this area
- significant population of northern abalone in addition to important octopus population

Marine Wildlife
- important area for cormorants, loons and grebes
- very high value killer whale habitat, sea lion haulout at Pachena Point
- migratory corridor for gray, killer and minke whales

Minerals, Oil and Gas
- minerals, oil and gas potential in the offshore
- high potential for oil and gas (Georgia Basin - total for Winona, Tofino-Fuca and Georgia Basins is 12 to 14 trillion cubic feet)
- good site-specific marine placer gold potential: (e.g. Sombrio-San Juan River; Klanawa - Nitinat area)
- good potential for offshore methane hydrate deposits (beneath continental slope)
- long-term future evaluation of offshore rift-zone metallic deposits and coastal geothermal may require activities in zone
- potential high quality near-shore aggregate deposits

Recreation Resource
- cruising, sport fishing and diving activities

Tourism Resources
- existing use for angling and wildlife viewing
- Sooke Harbour is a key feature

Visual Resources
- extensive off shore travel and use
- important land water interface: Pacific Rim National Park

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of

Race Rocks to Cape Beale cont...

land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Finfish Tenure	1
	Shellfish Tenure	2
Commercial	Commercial Wharf	5
	General Commercial	11
	Marina	4
Industrial	Log Handling and Storage	17
Institutional	Local/Regional Park	1
Misc. Land Use	Other	1
Residential	Private Moorage	81
	Residential Miscellaneous	1
Transportation	Public Wharf	2
Utility	Electric Power Line	3
Total # Tenures:		**129**

Existing Inventories/Plans/Studies

Regional Green/Blue Strategy, Capital Regional District Parks

Stakeholders/Interest Groups

Capital Regional District
Council of B.C. Yacht Clubs

CPU-12 Alberni Inlet

General Description

This waterway is 69 km long, 1.3 km in average width and is a major marine navigation corridor. The inlet has a strong positive estuarine flow during the spring and winter months which flushes the inlet and mitigates some of the deterioration in water quality. Temperatures can range from 5.0°C to 17.7°C seasonally and with location. It is subject to a substantial pollution load from pulp mills, sewage and marina outfalls. Oxygen levels in the planning unit are usually depressed.

Planning Needs

- Barkley Sound Planning Strategy Goals:
  1. to maintain significant recreation and scenic features which provide the basis for high quality recreation and tourism.
  2. to protect environmentally sensitive areas and to promote the conservation of fish and wildlife habitat and sites of historic and cultural importance.
  3. to maintain navigation channels and anchorages for ships, marine carriers and recreational boaters.
  4. to limit access and settlement to defined areas in order to maintain a remote marine environment with extensive areas of undeveloped shoreline.
  5. to provide a balance between public recreation, recreational cottages and commercial tourism and to minimize the impacts of development on adjacent uses.
  6. to maintain areas suited to marine-dependent resource industries, to encourage sustainable use of natural resources and to minimize impacts on the biological, recreational and visual resources of the area.
  7. to protect water quality for domestic purposes, fisheries and recreational uses by controlling pollution sources and monitoring water quality.
  8. to promote the conservation of fisheries and increased public involvement in fisheries management.
- potential future mining operations near the inlet (e.g., Macktush) may require infrastructure and be temporarily visible

Key Resource Information Gaps

None identified to date

Resource Uses and Potential

Aquaculture
- Upper Alberni Inlet is not recommended for salmon culture, however, lower Alberni Inlet is moderately suitable and San Mateo Bay is an area of good capability for both salmon and shellfish
- Uchucklesit Inlet is rated as moderately suitable for clam culture

Cultural Heritage Resources
- 4 medium density sites located along Alberni Canal

Forest Use
- important area for log-handling sites and associated infrastructure

Marine Fish
- major migratory route for anadromous fish returns to Somass and Nahmint Rivers
- important prawn fishing area and important shrimp area from holding area from Pochantas Point to Chup Point

Marine Wildlife
- there is one existing seal haulout site near the mouth of Alberni Inlet
- numerous eagle nesting sites along the length of the inlet

- Barkley Sound Planning Strategy has identified:
  - Trumpeter Swan and bald eagle
  - seabirds: Marbled Murrelet, Common Murre, Brandt's Cormorant, Pelagic Cormorant, Black Oystercatcher
  - marine mammals: grey whale, orca, sea lion, harbour seal

Minerals, Oil and Gas

- minerals, oil and gas potential in the offshore

Recreation Resources

- sport fishing and access to Broken Group/West Coast; some diving
- Barkley Sound Planning Strategy has identified recreational fishing throughout the Inlet

Tourism Resources

- access/travel route, emerging products based in Port Alberni; existing use and facilities

Visual Resources

- travel corridor for access to Coast, used by pocket cruise ship
- Barkley Sound Planning Strategy has identified Useless Inlet, upper slopes of Alberni Inlet

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Finfish Tenure	3
	Shellfish Tenure	3
Institutional	Institutional Miscellaneous	2
	Local/Regional Park	1
Residential	Private Moorage	1
Total # Tenures:		**10**

Existing Inventories/Plans/Studies

Barkley Sound Planning Strategy

Stakeholders/Interest Groups

Regional District of Alberni-Clayoquot
Council of B.C. Yacht Clubs

CPU-13 Barkley Sound

General Description

Barkley Sound is open to Pacific swells which can infiltrate through the many barrier islands. Open portions of Barkley Sound have salinities approaching that of Pacific coastal sea water but in many of the bays and inlets high intensity west coast storm runoff decrease salinities significantly. There is a barrier sill which is a maximum of 88 metres deep which restricts convection to the open Pacific. Pipestem Inlet, a classic low runoff fjord, and Effingham, a high runoff fjord, flow into the sound. Pipestem Inlet has some of the warmest recorded surface temperatures (>21°C) on the west coast of Vancouver Island. Barkley Sound is noted for its prolific plankton blooms which include Protogonyalaux (source of Paralytic Shellfish Poison) and Heterosigma.

Planning Issues

- Council of B.C. Yacht Clubs submission defined this CPU as the second most important CPU for planning recreational activities
- potential as future staging area for future offshore oil and gas platforms

Planning Needs

As per the following Barkley Sound Planning Strategy Goals:

- to maintain significant recreation and scenic features which provide the basis for high quality recreation and tourism.
- to protect environmentally sensitive areas and to promote the conservation of fish and wildlife habitat and sites of historic and cultural importance.
- to maintain navigation channels and anchorages for ships, marine carriers and recreational boaters.
- to limit access and settlement to defined areas in order to maintain a remote marine environment with extensive areas of undeveloped shoreline.
- to provide a balance between public recreation, recreational cottages and commercial tourism and to minimize the impacts of development on adjacent uses.
- to maintain areas suited to marine-dependent resource industries, to encourage sustainable use of natural resources and to minimize impacts on the biological, recreational and visual resources of the area.
- to protect water quality for domestic purposes, fisheries and recreational uses by controlling pollution sources and monitoring water quality.
- to promote the conservation of fisheries and increased public involvement in fisheries management.
- Council of B.C. Yacht Clubs submission
  - diving opportunities need to be defined

Key Resource Information Gaps

None identified at this date

Barkley Sound cont...

Resource Uses and Potential

Aquaculture

- there are highly capable areas for salmon culture particularly in Effingham, Pipestem and Useless Inlet, and surrounding the Deer Group Islands
- numerous shellfish culture sites particularly concentrated in Useless Inlet
- there is good clam and oyster capability on the Maggie River beaches in Loudoun Channel and in Roquefeuil Bay and Bamfield Inlet
- Poett Nook and upper Effingham is rated good for clam culture

Cultural Heritage Resources

- Barkley Sound Planning Strategy has identified:
  - areas rated as High (1 site per km. or more) include: Broken Group Islands, Deer Group Islands, Bamfield and Grappler Inlets, Stopper Islands, Lucky Creek - entrance to Pipestem Inlet

Forest Use

- important area for log-handling sites and associated infrastructure

Marine Fish

- significant herring spawn area along the northwest shore of Barkley Sound
- important crab area in Macoah Passage
- important geoduck area on the Maggies River shore and off Mills Peninsula
- important groundfish area in Loudoun and Imperial Eagle Channel
- important shrimp area in Imperial Eagle Channel
- important squid areas in Ucluelet Harbour
- important urchin area around Chrow Island to George Fraser Island
- Renate Reef is habitat for rare six-gill shark
- Barkley Sound Planning Strategy has identified herring spawn along N shore of London Channel; oysters are found in Pipestem Inlet

Marine Wildlife

- high habitat values for marine/coastal species: sea otter, bald eagle, marbled murrelet, waterfowl, seal and sea lion haulouts
- Barkley Sound Planning Strategy has also identified:
  - Trumpeter Swan
  - seabirds: Common Murre, Brandt's Cormorant, Pelagic Cormorant, Black Oystercatcher
  - marine mammals: grey whale, orca

Minerals, Oil and Gas

- former Brynnor Mines loading facility

Recreation Resources

- sport fishing, kayaking, cruising, diving, beach activities and wildlife viewing
- important destination; important infrastructure and travel routes; based on wildlife/angling and scenic values
- Barkley Sound Planning Strategy has also identified many dive sites and recreational fishing in Trevor Channel, Deer Group Islands, east side of the Broken Group Islands

Visual Resources

- Barkley Sound Planning Strategy has also identified Broughton Peak area, slopes adjacent to Newcombe Channel (Mt. Ozzard), and shoreline areas throughout Barkley Sound and the numerous small islands are particularly important.

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Shellfish Tenure	8
Commercial	Commercial Wharf	7
	General Commercial	21
	Marina	4
Community	Community Facility	2
Industrial	Log Handling and Storage	11
Institutional	Institutional Miscellaneous	1
	School/Outdoor Ed. area	2
Residential	Private Moorage	52
Transportation	Public Wharf	8
Utility	Electric Power Line	3
	Sewer/Effluent Line	2
	Telecommunication Line	2
	Water Line	2
Total # Tenures:		**125**

Other Land Use Designations

- some aquaculture priority zones are within special management zones in Barkley Sound

Existing Inventories/Plans/Studies

Barkley Sound Planning Strategy

Stakeholders/Interest Groups

Alberni-Clayoquot Regional District
Council of B.C. Yacht Clubs

CPU-14 Barkley Sound Outer Coast

General Description

This planning unit is the approach to Barkley Sound and as such it is open to Pacific swell, and approaches salinity and temperature values of the open Pacific.

Planning Needs

- mineral, oil and gas potential in offshore may require future nearshore infrastructure support

Key Resource Information Gaps

- no cultural heritage resources sites identified
- specific visual resources not yet identified

Resource Uses and Potential

Aquaculture
- the area is currently rated as not acceptable for finfish culture and no aquaculture tenures exist

Forest Use
- important area for log-handling sites and associated infrastructure

Marine Fish
- major returning salmon holding area
- important groundfish area on Big Bank, Cape Beale and Lighthouse Bank
- important shrimp trawl area
- important abalone area off Ucluth Peninsula
- important urchin area off Chrow Island and George Fraser Island area

Marine Wildlife
- this area contains a major gray whale migration route
- resident pods of Orcas (J-K-L clan of southern group) transit to Trevor channel and into Effingham Inlet through this area

Minerals, Oil and Gas
- good potential for oil and gas (Tofino-Fuca Basin - total for Winona, Tofino-Fuca and Georgia Basins is 12 to 14 trillion cubic feet)
- good potential for large offshore hydrothermal deposits (beneath continental slope)
- moderate potential for geothermal resources

Recreation Resources
- sport fishing and whale watching

Tourism Resources
- key gray whale-watching area seasonally
- important angling opportunities; includes extensive use by major operations

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.
Total # Tenures: 0

Existing Inventories/Plans/Studies

No information provided

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs

CPU-15 Nootka Sound and Associated Waterways

General Description

Muchalat, Tlupana and Tahsis Inlets are deep water channels which intertwine through the Bligh Island archipelago where water depths are much shallower. Water temperatures in the Sound are relatively warm in the summer due to localized solar heating and a slow exchange of inlet waters. Prevailing summer northwest winds, daytime sea breeze and the relatively brackish Vancouver Island Coastal Current tend to retard the estuarine outflow at its mouth.

Planning Issues

- Public group submissions
  - need to coordinate marine planning process with the proposed Nootka Rural Land-Use Bylaw process of the Regional District of Comox Strathcona.
- Nootka Resource Board submission
  - need to identify confidential First Nations cultural, traditional use, fishing and harvesting sites in planning without compromising site integrity by public identification/disclosure of sites.
  - ecologically significant zooplankton assemblage locations in inlets should be identified in planning
  - locations of critical marine ecosystem physical and biological oceanographic component processes (e.g. locations of critical zooplankton assemblages/ refugia and turbulent mixing/ upwelling areas within inlets) should be identified.
  - locations of critical areas for larval settlement, recruitment and rearing of marine invertebrates (shellfish, zooplankton), marine (commercial, non-commercial and forage), and other fish species and assemblages should be identified.
- Council of B.C. Yacht Clubs submission
  - Location of proposed boat havens (# refers to the Council's Boat Haven List)

    #2 Resolution Cove
    Chart 3664 Map 92E O68

Nootka Sound and Associated Waterways cont...

#3 Vales Bay
Chart 3664 Map 92E O78
- request that Special Management Areas be created with the immediate upland of these proposed boat havens

- the area is recognized for sport fishing and kayaking.

Planning Needs

- Nootka Resource Board submission
  - development proponents must be required to prove that developments will not negatively impact sites, traditional uses and ecosystem sustaining processes before approvals are granted.
  - develop a respectful consultation mechanism with each First Nation to allow protection of confidential sites.
  - ensure that upland First Nations Indian Reserves, and future Treaty Lands are identified and linked to CPU
- potential need for onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas
- Council of B.C. Yacht Clubs submission
  - diving opportunities need to be defined.

Key Resource Information Gaps

- specific visual resources not yet identified

Resource Uses and Potential

Aquaculture
- wild oyster recruitment and harvest occurs in Hisnit Inlet and upper Tlupana Inlet
- there are highly capable areas for aquaculture in Tlupana Inlet particularly in Head and Nesook Bay, also in Hisnit Inlet, Kendrick Inlet, Mooyah Bay in Muchalt Inlet, Kendrick Inlet and near northern Bligh Island

Cultural Heritage Resources
- important confidential First Nations cultural sites throughout
- important traditional fishing and shellfish gathering locations throughout
- numerous medium density cultural heritage sites located along Tahsis and Muchalat Inlets
- numerous cultural heritage sites on Nootka & Bligh Island and Tlupana Inlet

Forest Use
- Tahsis and Muchalaht Inlets support significant shipping traffic to Gold River and Tahsis mills
- important area for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities along sections of shoreline

Marine Fish
- major salmon out migration and rearing areas throughout
- important estuarine salmon rearing areas at heads of all inlets and at all streams along Tahsis, Tlupana, Muchalat and Matchlee Inlets
- significant wild clam fishing and prawn fishing areas throughout
- Juvenile rockfish rearing areas throughout inlets (e.g. Pacific Ocean Perch rearing in Matchlee Inlet)
- Tlupana, Muchalat and Matchlee Inlets recently supporting Pacific Sardine recurrences
- Outer Nootka Sound important dogfish pupping area
- major returning salmon holding area in Nootka Sound and Tlupana Inlet
- important crab areas in Tlupana, Hisnit, and Kendrick Inlets, Head and Moutcha Bays, Kleeptee and Silverado Estuaries, Mooya Bay, King Passage and lower Tahsis
- important herring spawn area from Spanish Pilot Group to Clerke Peninsula and from Friendly Cove to Marvinus Island
- important urchin area in lower Zuciarte Channel and off southeast Nootka Island

Marine Wildlife
- the estuaries of Burman, Leiner, Gold, Tahsis, Sucwoa, Conuma and Tlupana rivers important areas for wintering waterfowl
- Escalante Point important marine mammal area
- important seal haul-outs in Spanish Pilot group-Bligh Island Park and Savaedra Islands

Minerals, Oil and Gas
- mineral, oil and gas potential in the offshore

Recreation Resources
- mainly sport fishing, limited diving, popular kayaking area; boating

Tourism Resources
- destination angling resorts
- kayaking
- limited but high-value existing infrastructure
- extensive use based on trophy salmon
- management of commercial sport fishing resources important to viable tourism industry

Visual Resources
- views of Conuma Peak and Tlupana from Yuquot and Santa-Boca Park.

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities

at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Shellfish Tenure	5
Commercial	General Commercial	8
	Marina	2
Industrial	General Industrial	1
	Log Handling and Storage	34
Misc. Land Use	Environmental Protection	1
	Fisheries Facility	2
	Hunting/Fishing camp	1
	UREP/ Recreation Reserve	2
Transportation	Public Wharf	3
	Navigational Aid	1
Utility	Electric Power Line	1
	Telecommunication Line	1
Total # Tenures:		**62**

Other Land Use Designations

- shellfish reserve status suggested by BC Fisheries.
- Tsowwin Beach approved by DFO as pilot commercial beach for Mowachaht/Muchalaht First Nations.

Existing Inventories/Plans/Studies

Regional District of Comox Strathcona is beginning a plan for Nootka Sound
DFO WCVI Clam Beach Atlas
BC Fisheries shellfish suitability and capability studies
DFO records of historical herring spawning locations
Provincial Boat Havens Catalogue & User Survey: West Coast Vancouver Island & Campbell River
Fiordland Recreation Area. Council of B.C. Yacht Clubs

Stakeholders/Interest Groups

Area G Troll Association
Area F Community Clam Mgmt. Board
Regional District of Comox-Strathcona
Council of B.C. Yacht Clubs
Friends of Nootka Sound
International Forest Products Ltd.
Mowachaht/Muchalaht First Nations
Nootka Resource Board
Gold River Rod & Gun Club
Nootka First Nation Forest Products Ltd.
Nootka-Kyuquot Sport Fishing Advisory Committee
Nuu-chah-nulth Tribal Council
Outdoor Recreation Council of British Columbia
Villages of Gold River, Tahsis and Zeballos
WCVI/ Nuu-chah-nulth Regional Fisheries Mgmt. Board
West Coast Sustainability Association
Western Forest Products Ltd.

CPU-16 Nootka, Kyuquot and Esperanza Sound Approaches

General Description

Open to Pacific swell and approaches salinity and temperature values of the open Pacific.

Planning Issues

- Public interest group submissions
  - foreshore of Union Island is included in CPU-18 and, with the intent to combine on-shore waters under one planning unit, the inter-island areas of CPU 16 fit better in CPU-18.
  - need to coordinate marine planning process with the proposed Nootka Rural Land-Use Bylaw process of the Regional District of Comox Strathcona.
- Nootka Resource Board submission
  - need to identify confidential First Nations cultural, traditional use, fishing and harvesting sites in planning without compromising site integrity by public identification/disclosure of sites.
  - locations of critical marine ecosystem physical and biological oceanographic component processes (e.g. locations of critical zooplankton assemblages/ refugia and turbulent mixing/ upwelling areas within inlets) need to be identified.
  - locations of critical areas for larval settlement, recruitment and rearing of marine invertebrates (shellfish, zooplankton), marine (commercial, non-commercial and forage), and other fish species and assemblages need to be identified.

Planning Needs

- Nootka Resource Board submission
  - development proponents must be required to prove that developments will not negatively impact sites, traditional uses and ecosystem sustaining processes before approvals are granted.
  - develop a respectful consultation mechanism with each First Nation to allow protection of confidential sites.
  - identification and protection of all historical herring spawn areas required.
  - ensure that upland First Nations Indian Reserves, and future Treaty Lands are identified and linked to CPU.
- potential need for onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas

Nootka, Kyuquot and Esperanza Sound Approaches cont...

Key Resource Information Gaps

- specific visual resources not yet identified

Resource Uses and Potential

Aquaculture

- currently there are no operating aquaculture sites

Cultural Heritage Resources

- important confidential First Nations cultural sites throughout
- important traditional fishing and shellfish gathering locations throughout
- numerous traditional use, traditional fishing areas/ cultural sites of Northern Nuu-chah-nulth First Nations (Mowachaht/Muchalaht, Ka:yu:'k't'h'/Che:ktles7et'h', Ehattesaht and Nuchatlaht) throughout

Forest Use

- important area for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities along sections of the shoreline

Marine Fish

- important geoduck areas in Clear Passage and the Mission group
- important gooseneck barnacle area in the Barrier Islets
- important groundfish area from Bajo to Tatchu Point and at the entrance to Nootka and Kyuquot Inlets
- important salmon grounds fronting Bajo Reef and the Bunsby Islands
- important local salmon juvenile and local adults migration routes and staging areas through entrances to Kyuquot, Esperanza and Nootka Sounds and associated waterways
- important staging and migration routes for non-local salmon over entire planning unit
- important herring spawning area around Bajo Point, usually not reported due to weather constraints
- important Dentalium shell beds between Grassy and Catala Islands/Rolling Roadstead

Marine Wildlife

- this area contains a major gray whale migration route at 1.5 to 2.5 km offshore
- resident pods of orcas (16-170) transit this area
- important sea otter and sea lion habitat exists
- Spring Island has important populations of sea otters moving out from adjacent Checleset Bay Ecological Reserve

Minerals, Oil and Gas

- mineral, oil and gas potential in the offshore
- good potential for large offshore hydrothermal deposits
- moderate potential for geothermal resources

Recreation Resources

- limited cruising, sport fishing and kayaking

Tourism Resources

- modest current use and facilities
- opportunities have been identified based on wildlife viewing, angling, kayaking and scuba in specific sites
- limited surfing visits to outer Nootka Island
- significant recent growth in marine sport fishing effort between Maquinna-Bajo Pt., Ferrer-Tachu Pt., Highest and Spring/Lookout Islands

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Total # Tenures: 0

Existing Inventories/Plans/Studies

DFO WCVI Clam Beach Atlas
BC Fisheries shellfish suitability and capability studies
DFO records of historical herring spawning locations
BC Fisheries Kelp Inventory

Stakeholders/Interest Groups

Area F Community Clam Mgmt. Board
Area G Troll Association
Regional District of Comox-Strathcona
Council of B.C. Yacht Clubs
Ehattesaht First Nation
Friends of Nootka Sound
Gold River Rod & Gun Club
Hesquiaht First Nations (extreme southern end of unit)
International Forest Products Ltd.
Ka: yu:'k't'h'/Che:ktles7et'h' First Nations
Kyuquot Management Board
Kyuquot Economic & Environmental Protection Society
Mowachaht/Muchalaht First Nations
Nootka Resource Board
Nootka First Nation Forest Products Ltd.
Nootka-Kyuquot Sport Fishing Advisory Committee
Nuchatlaht First Nation
Outdoor Recreation Council of B.C.
Western Forest Products Ltd.
Villages of Gold River, Tahsis and Zeballos
WCVI/ Nuu-chah-nulth Regional Fisheries Mgmt. Board
West Coast Sustainability Association
West Coast Expeditions

CPU-17 Esperanza Inlet

General Description

This planning unit includes Zeballos, Port Eliza, Queen Cove, Espinosa and Little Espinosa Inlets. Esperanza Inlet may be classed as a low to intermediate runoff fjord. The waters may be subject to occasional upwelling of anoxic deeper waters. Reported values of oxygen concentration range between 5 to 8 ml/L for the upper 10 m of the water column.

Planning Issues

- Public group submissions
  - need to coordinate marine planning process with the proposed Nootka Rural Land-Use Bylaw process of the Regional District of Comox Strathcona.
- Nootka Resource Board submission
  - need to identify confidential First Nations cultural, traditional use, fishing and harvesting sites in planning without compromising site integrity by public identification/disclosure of sites.
  - locations of critical marine ecosystem physical and biological oceanographic component processes (e.g. locations of critical zooplankton assemblages/ refugia and turbulent mixing/upwelling areas within inlets) should be identified.
  - locations of critical areas for larval settlement, recruitment and rearing of marine invertebrates (shellfish, zooplankton), marine (commercial, non-commercial and forage), and other fish species and assemblages should be identified
- Council of B.C. Yacht Clubs submission
  - Location of proposed boat havens (# refers to the Council's Boat Haven List)
    #4 Mary Basin S.E. of Lord Island
    Chart 3663 Map 92E O76
    #5 Queen Cove
    Chart 3663 Map 92E O86
  - request that Special Management Areas be created with the immediate upland of these proposed boat havens
  - third most important CPU for planning recreational activities.
- planning for potential onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas

Planning Needs

- Nootka Resource Board submission
  - development proponents must be required to prove that developments will not negatively impact sites, traditional uses and ecosystem sustaining processes before approvals are granted
  - develop a respectful consultation mechanism with each First Nation to allow protection of confidential sites
  - identification and protection of all historical herring spawn areas required
  - ensure that upland First Nations Indian Reserves, and future Treaty Lands are identified and linked to CPU
- potential need for onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas
- Council of B.C. Yacht Clubs submission
  - diving opportunities need to be defined

Key Resource Information Gaps

- specific visual resources not yet identified

Resource Uses and Potential

Aquaculture

- Savey Beach in Espinosa Inlet approved as Nuchatlaht First Nation Pilot commercial clam beach. Another beach is pending approval for Ehattesaht First Nation
- high capability for aquaculture in Port Eliza and inner Nuchatlitz Inlets, Zeballos Inlets, Tahsis Narrows and lower Hecate Channel

Cultural Heritage Resources

- numerous heritage/traditional cultural sites identified, particularly along Espinosa Inlet
- numerous traditional use, fishing areas/cultural sites of Ehattesaht and Nuchatlaht First Nations

Forest Use

- important area for log-handling sites and associated infrastructure

Marine Fish

- important local salmon juvenile and local adults migration routes and staging areas throughout Esperanza, Port Eliza, Espinosa, Zeballos and Nuchatlitz Inlets.
- important estuarine salmon rearing habitat in all stream estuaries. Important herring spawning area inside Nuchatlitz; in times of higher herring abundance, spawns occur in Port Eliza Inlet.
- important rockfish rearing areas throughout inlets.
- important Pacific Ocean Perch rockfish rearing

Esperanza Inlet cont...

area at fish farm site at junction of Esperanza/Hecate Channel
- important Lingcod nesting sites on reefs at Outer Esperanza
- six-gill sharks have been caught in upper Zeballos, and giant ocean sunfish in Hecate Channel
- outer Esperanza, particularly Nuchatlitz Bank and Port Langford are all important herring spawning areas
- important crab areas in and fronting Nuchatlitz Inlet, in Hecate Channel to Tahsis Narrows and off Rolling Roadstead
- important geoduck areas off Nuchatlitz, Rolling Roadstead and Birthday Channel
- important gooseneck barnacle area off Catala Island and Gillam Channel
- important clam and oyster areas in most estuaries
- important groundfish area at the mouth of Esperanza Inlet
- important salmon area in outer Esperanza Inlet from the mouth of Espinosa Inlet west

Marine Wildlife
- Esperanza Inlet is apparently a secondary orca leading inlet leading to or out of Tahsis Inlet
- gray whale and sea lion milling area in outer Nuchatlitz
- river otters, mink and raptors reported at the heads of Espinosa and Zeballos Inlets
- sea otters are found in the outer reaches and approaches to sounds and inlets

Minerals, Oil and Gas
- mineral, oil and gas potential in the offshore
- high mineral potential onshore at Zeballos and eastern Nootka Island may extend under area; may involve coast-based exploration and development activities, barging, waste management

Recreation Resources
- kayaking and sport fishing
- wildlife viewing (sea otters)

Tourism Resources
- limited existing use based on angling, growing kayak and cruising activity
- few facilities; tourism interests focus on outer reaches and coast

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Finfish Tenure	5
	Shellfish Tenure	2
Commercial	General Commercial	1
Industrial	General Industrial	2
	Log Handling and Storage	12
Institutional	Institutional Miscellaneous	2
Misc. Land Use	Other	2
	UREP/ Recreation Reserve	2
Transportation	Public Wharf	8
Utility	Electric Power Line	1
Total # Tenures:		**37**

Other Land Use Designations

Savey Beach in Espinosa Inlet approved as Nuchatlaht First Nation Pilot commercial clam beach. Another beach is pending approval for Ehattesaht First Nation.

Existing Inventories/Plans/Studies

DFO WCVI Clam Beach Atlas
BC Fisheries shellfish suitability and capability studies
DFO records of historical herring spawning locations
Provincial Boat Havens Catalogue & User Survey: West Coast Vancouver Island & Campbell River
Fiordland Recreation Area. Council of B.C. Yacht Clubs

Stakeholders/Interest Groups

Area G Troll Association
Area F Community Clam Mgmt. Board
Regional District of Comox-Strathcona
Council of B.C. Yacht Clubs
Ehattesaht First Nation
Friends of Nootka Sound
International Forest Products Ltd.
Nootka Resource Board
Nootka-Kyuquot Sport Fishing Advisory Committee
Nuchatlaht First Nation
Nuu-chah-nulth Tribal Council
Outdoor Recreation Council of British Columbia
Villages of Gold River, Tahsis and Zeballos
WCVI/ Nuu-chah-nulth Regional Fisheries Mgmt. Board
West Coast Sustainability Association
West Coast Expeditions
Western Forest Products Ltd.

CPU-18 Kyuquot Sound

General Description

This planning unit includes all of Kyuquot Sound and the inner basin which extends into a series of typical fjords: Amai, Cachalot, Easy, Fair Harbour, Kashutl and Tahsish Inlets. Sizable rivers empty into

all except Easy Inlet. Kashutl and Tahsish are probably best classified as intermediate runoff fjords. Recorded temperatures for the upper 10 metres average from 9 to 12°C but likely exceed 14°C as a maximum. Oxygen levels range from 7 to 11 mg/l.

Planning Issues

- Public group submissions:
  - The Mission Group (which includes Spring Island) should be part of CPU-18, rather than part of CPU-16.
- Nootka Resource Board submission:
  - Existing fish farm has agreement with Ka:yu:'k't'h'/Che:'ktles7et'h' First Nation not to culture Atlantic Salmon- a condition upon which the farm application was supported.
  - Developments must not create a 'dependency' for salmon enhancement activities to maintain stocks as is now the case in many other WCVI areas.
  - Existing fish farms are located in important salmon holding areas.
  - Need to identify confidential First Nation's cultural, traditional use, fishing and harvesting sites in planning without compromising site integrity by public identification/disclosure of sites.
- Council of B.C. Yacht Clubs submission:
  - Location of proposed boat havens (# refers to the Council's Boat Haven List)

    #6 Volcanic Cove
    Chart 3682 Map 92E O64

    #7 Dixie Cove
    Chart 3682 Map 92L 004/005
  - request that Special Management Areas be created with the immediate upland of these proposed boat havens.
  - the area is good for kayaking.
  - Locations of critical marine ecosystem physical and biological oceanographic component processes (e.g. locations of critical zooplankton assemblages/ refugia and turbulent mixing/upwelling areas within inlets).
  - Locations of critical areas for larval settlement, recruitment and rearing of marine invertebrates (shellfish, zooplankton), marine (commercial, non-commercial and forage), and other fish species and assemblages.

Planning Needs

- Nootka Resource Board submission:
  - Development proponents must be required to prove that developments will not negatively impact sites, traditional uses and ecosystem sustaining processes before approvals are granted.
  - Develop a respectful consultation mechanism with each First Nation to allow protection of confidential sites.
  - Ensure that upland First Nations Indian Reserves, and future Treaty Lands are identified and linked to CPU.
- potential need for onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas
- Council of B.C. Yacht Clubs submission:
  - diving opportunities need to be defined

Key Resource Information Gaps

- specific visual resources not yet identified

Resource Uses and Potential

Aquaculture

- there is high aquaculture capability in lower Kashutl Inlet, on the north side of Moketas Island, in the channel between Union and Hohoae Island, and in Chamiss and Diesel Bay

Cultural Heritage Resources

- numerous sites located throughout Kyuquot Sound

Forest Use

- important area for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities along sections of the shoreline

Marine Fish

- this CPU and Checleset Bay contain the last significant un-enhanced salmon stock complex on the WCVI
- Tahsish, Kashutl, Amai and Cachalot Inlets recently supporting Pacific Sardine recurrences
- important crab grounds in Cachalot Inlet and the head of Tahsish Inlet
- important geoduck areas in Markale Passage, Pinnace and Kyuquot Channels
- important local herring spawning areas fronting Union Island, and Amai/Cachalot Inlets, and likely others
- important herring area in Crowther Channel
- important prawn grounds in inner Kyuquot, and throughout Kashutl and Tahsish Inlets
- important sea cucumber area in Crowther Channel
- important salmon holding area in Kyuquot channel and surrounding Moketas and Hohoae Channel

Kyuquot Sound cont...

Marine Wildlife
- higher than average seal populations and a secondary resident orca route around Union Island
- minerals, oil and gas potential in the offshore

Recreation Resources
- kayaking and sport fishing

Tourism Resources
- angling, kayak and marine cruising products
- entry point for Brooks Peninsula destinations

Visual Resources
- views of 'Twin Ears' from Inlet

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Finfish Tenure	4
	Shellfish Tenure	1
Commercial	General Commercial	3
Industrial	General Industrial	2
	Log Handling and Storage	20
Residential	Private Moorage	1
Total # Tenures:		**31**

Other Land Use Designations

- Pilot Commercial Clam beach approval pending from DFO for Ka:yu:'k't'h'/Che:'ktles7et'h' First Nation.
- Geyserite tenure at Montieth Bay.

Existing Inventories/Plans/Studies

DFO WCVI Clam Beach Atlas
BC Fisheries shellfish suitability and capability studies
DFO records of historical herring spawning locations
Provincial Boat Havens Catalogue & User Survey: West Coast Vancouver Island & Campbell River
Fiordland Recreation Area. Council of B.C. Yacht Clubs

Stakeholders/Interest Groups

Area F Community Clam Mgmt. Board
Area G Troll Association
Regional District of Comox-Strathcona
Council of B.C. Yacht Clubs
International Forest Products Ltd.
Ka: yu:'k't'h'/Che:ktles7et'h' First Nations
Kyuquot Economic & Environmental Protection Society
Kyuquot Management Board
Nootka-Kyuquot Sport Fishing Advisory Committee
Nuu-chah-nulth Tribal Council
Outdoor Recreation Council of British Columbia
WCVI/ Nuu-chah-nulth Regional Fisheries Mgmt. Board
West Coast Expeditions
West Coast Sustainability Association
Western Forest Products Ltd.

CPU-19 Brooks Peninsula Approaches

General Description

Significant wave heights along the coastline are likely to exceed 6 metres during storm winds. This region is an upwelling zone during the summer which reduces surface temperatures by 5°C. The 50-metre isobath is located a relatively long distance from the shoreline. All of the shoreline of this area is within a protected area with the exception of Ououkinsh and Malksope Inlets.

Planning Issues And Needs

- Public group submissions:
  - since both Ououkinsh and Malksope Inlets are connected by a road to Kyuquot Sound, they might be more easily managed as part of CPU 18.
  - numerous cultural heritage sites have been identified, which is different than the information in the draft CPU report.
- Nootka Resource Board Submission
  - the Checleset Bay Ecological Reserve, Brooks Protected Area and Proposed Marine Protected area covers essentially all of the Ha-houlthee of the Che:'ktles7et'h First Nation.
  - need to identify confidential First Nations cultural, traditional use, fishing and harvesting sites in planning without compromising site integrity by public identification/disclosure of sites.
  - locations of critical marine ecosystem physical and biological oceanographic component processes (e.g. locations of critical zooplankton assemblages/ refugia and turbulent mixing/upwelling areas within inlets).
  - locations of critical areas for larval settlement, recruitment and rearing of marine invertebrates (shellfish, zooplankton), marine (commercial, non-commercial and forage), and other fish species and assemblages.
  - consultation with the Ka:yu:k't'h'/Che:ktles7et'h' First Nation in how to best achieve cooperative planning with the Che:ktles7et'h' First Nation.
- Council of B.C. Yacht Clubs submission
  - Location of proposed boat havens (# refers to the Council's Boat Haven List)

    #8 Battle Bay
    Chart 3683 Map 92L O13

#9 Columbia Cove
Chart 3617 Map 92L O52
- request that Special Management Areas be created with the immediate upland of these proposed boat havens.
- the area is recognized for kayaking.

Planning Needs

- Nootka Resource Board submission:
  - Development proponents must be required to prove that developments will not negatively impact sites, traditional uses and ecosystem sustaining processes before approvals are granted.
  - Develop a respectful consultation mechanism with each First Nation to allow protection of confidential sites.
  - Ensure that upland First Nations Indian Reserves, and future Treaty Lands are identified and linked to CPU.
- Council of B.C. Yacht Clubs submission
  - diving opportunities need to be defined.
- potential need for onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas.
- Cultural heritage site inventory must be rationalized with current information.

Key Resource Information Gaps

- specific visual resources not yet identified

Resource Uses and Potential

Aquaculture
- due to the exposure and relatively large shallow shelf this area is generally not suitable for finfish aquaculture

Forest Use
- basically north of the Brooks Peninsula

Marine Fish
- important geoduck and herring spawn areas in Checleset Bay and Ououkinsh and Malksope Inlets.
- important commercial crab area off the northwest coast of Brooks Peninsula and in the northwest section of this planning unit off Quatsino Sound
- important groundfish area throughout
- important geoduck and herring spawn areas in Checleset Bay and Ououkinsh and Malksope Inlets
- important herring area in outer Klashkish Inlet
- important salmon area off the northwest coast of Brooks Peninsula and in southeast Checleset Bay

Marine Wildlife
- a population of hundreds of sea otters exist in Checleset Bay Ecological Reserve
- the annual gray whale migration centers on a corridor about 1 to 2 km off the coastline
- there are numerous sea lion haulouts and seabird colonies
- pods of resident orcas also transit this area

Minerals, Oil and Gas
- minerals, oil and gas potential in the offshore

Recreation Resources
- limited use for cruising

Tourism Resources
- limited use

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.
Total # Tenures: 0

Existing Inventories/Plans/Studies

DFO WCVI Clam Beach Atlas
BC Fisheries shellfish suitability and capability studies
DFO records of historical herring spawning locations.
Provincial Boat Havens Catalogue & User Survey: West Coast Vancouver Island & Campbell River
Fiordland Recreation Area. Council of B.C. Yacht Clubs

Stakeholders/Interest Groups

Area F Community Clam Mgmt. Board
Area G Troll Association
Regional District of Comox-Strathcona
Council of B.C. Yacht Clubs
Interfor
Ka: yu:'k't'h'/Che:ktles7et'h' First Nations
Kyuquot Economic & Environmental Protection Society
Kyuquot Management Board
Mount Waddington Regional District
Nootka Resource Board
Nootka-Kyuquot Sport Fishing Advisory Committee
Nuu-chah-nulth Tribal Council
Outdoor Recreation Council of British Columbia
WCVI/ Nuu-chah-nulth Regional Fisheries Mgmt. Board
West Coast Expeditions
West Coast Sustainability Association

CPU-20: Quatsino Sound

General Description

High salinity fjord; important marine biota and habitat concentrated near the mouth. Southern ends of Rupert and Neroutsos Inlets affected by major industrial development. Tidal rapids in Quatsino Narrows.

Planning Issues

- Council of B.C. Yacht Clubs submission
  - Location of proposed boat havens (# refers to the Council's Boat Haven List)
    #10 Pamphlet Cove
    Chart 3617 Map 92B O53
  - request that Special Management Areas be created with the immediate upland of these proposed boat havens

Planning Needs

- planning needed for potential onshore and/or offshore mineral, oil and gas exploration and development infrastructure, transportation, materials handling and disposal areas

Key Resource Information Gaps

None identified to date

Resource Uses and Potential

Aquaculture
- very high aquaculture capability for several species in Winter Harbour, the area between Koprino and Drake Island, and in Coal Harbour
- acceptable capability elsewhere with lowest capability at the entrance and at the heads of Neroutsos and Holberg Inlets

Cultural Heritage Resources
- shipwrecks, old fish cannery ruins and numerous heritage/traditional cultural sites located throughout Quatsino Sound

Forest Use
- important area for log-handling sites and associated infrastructure
- log salvage and hand logging opportunities along sections of the shoreline

Marine Fish
- major herring spawning grounds in Winter Harbour and Forward Inlet
- six gill sharks abundant near Drake Island
- important crab areas in Monday Rocks, Koskimo Bay, Koprino Harbour, fronting Hathaway Creek, in Holberg, in upper Rupert and Neroutsos Inlet estuary
- important geoduck areas in Forward Inlet, Koprino Harbour and Winter Harbour
- important prawn grounds in Quatsino Inlet from Monday Rocks to Drake Island and throughout Holberg and Neroutsos Inlets
- important sea cucumber areas around Hastad and Koskimo Islands and in Koprino Harbour
- important shrimp ground in outer Quatsino Inlet
- important abalone grounds near Flint Rock and Koskimo Bay
- important urchin area in Koskimo Bay

Marine Wildlife
- large seabird colony and sea lion haulout on Gillam Islands
- orcas frequent outer Sound
- area important for marbled murrelet summer feeding

Minerals, Oil and Gas
- minerals, oil and gas potential in the offshore
- coal measures at Quatsino Sound/Coal Harbour
- site of former Island Copper Mine at Rupert Inlet; ongoing monitoring of benthic re-colonization of submarine tailings
- significant limestone deposits adjacent to Rupert Inlet under evaluation for development may require barging infrastructure

Recreation Resources
- Quatsino Narrows, Winter Harbour and Drake Island are important features for boating, sport fishing, wildlife viewing

Tourism Resources
- modest existing use and infrastructure but substantial potential in specific sites
- good potential in select sites for high-value nature-based products

Visual Resources
- lower profiles on inner reaches are of less importance than outer reaches

Land and Resource Tenures

The following list of tenures is generalized information meant to illustrate existing patterns of land use activities at the time of publication. For current information, refer to appropriate Land Records Files.

Aquaculture	Finfish Tenure	6
Commercial	General Commercial	9
	Marina	1
Industrial	General Industrial	4
	Log Handling and Storage	35
Institutional	Institutional Miscellaneous	1
	Local/Regional Park	2

Misc. Land Use	Other	1
Residential	Private Moorage	4
Transportation	Public Wharf	4
Utility	Electric Power Line	1
	Telecommunication Line	1
Total # Tenures:		**69**

Existing Inventories/Plans/Studies

- Provincial Boat Havens Catalogue & User Survey: West Coast Vancouver Island & Campbell River Fiordland Recreation Area. Council of B.C. Yacht Clubs
- Northern Vancouver Island Forest Recreation and Tourism Opportunities Study

Stakeholders/Interest Groups

Council of B.C. Yacht Clubs
Mount Waddington Regional District
Outdoor Recreation Council of British Columbia

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